

LIBRA JOURNAL CLUB 7-14-SEPTEMBER 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

Heart Lung

-
-
-

. 2026 Sep 11:80:102948.

doi: 10.1016/j.hrtlng.2026.102948. Online ahead of print.

[A two-minute bedside assessment is associated with ED disposition and 30-day mortality in COPD exacerbations: The Barthel Index](#)

[Raúl Alonso Avilés](#)¹, [Alberto Gómez de Diego](#)², [Carlos Del Pozo Vegas](#)², [Marina Jimeno Asensio](#)³, [Alberto Caballero García](#)⁴, [Raúl López Izquierdo](#)⁵

Affiliations Expand

- PMID: 42727532
- DOI: [10.1016/j.hrtlng.2026.102948](#)

Abstract

Background: Acute exacerbations of chronic obstructive pulmonary disease (AECOPD) are a leading cause of emergency department (ED) attendance, yet admission decisions lack validated bedside tools.

Objectives: To identify predictors of admission and 30-day mortality in ED AECOPD, test whether they differ by ARF status, and derive parsimonious bedside models.

Methods: Secondary analysis of a prospective, multicentre registry (PREURG-CyL) spanning 14 EDs in Spain (01 November 2022 to 31 May 2023). Adults with AECOPD were followed for 30 days. Primary outcomes were hospital admission and 30-day

all-cause mortality. Multivariable logistic regression with pre-specified stratification by acute respiratory failure (ARF) status. Internal validation used bootstrap resampling (1000 replications).

Results: Of 1214 analyzed patients (mean age 74.3 years; 72.1% male), 693 (57.1%) were admitted and 64 (5.3%) died within 30 days. ARF dominated admission overall (OR 16.12). Stratified analysis revealed that among patients with ARF (87.7% admitted), functional independence (Barthel = 100) was the sole factor associated with lower admission (OR 0.50, 95% CI 0.27-0.93); among those without ARF (30.8% admitted), male sex and age were the key predictors. The Barthel Index was the strongest predictor of 30-day mortality cohort-wide (OR 0.28, 95% CI 0.15-0.53; 72% risk reduction). Bootstrap-corrected AUC was 0.806 for admission and 0.787 for mortality.

Conclusion: The Barthel Index - a two-minute bedside assessment requiring no laboratory testing serves a dual function: identifying candidates for outpatient management among patients with ARF, and stratifying 30-day mortality risk. A clinical decision algorithm integrating ARF status and the Barthel Index is proposed.

Keywords: 30-day mortality; Acute respiratory failure; Barthel Index; COPD exacerbation; Clinical decision algorithm; Emergency department disposition; Functional status; Triage biomarker.

Copyright © 2026 Elsevier Inc. 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.

Full text links



[Proceed to details](#)

Cite

2

PLoS One

-
-
-

. 2026 Sep 11;21(9):e0357923.

doi: 10.1371/journal.pone.0357923. eCollection 2026.

[Inflammatory discordance phenotype in COPD: Dissociation between neutrophil-to-lymphocyte ratio and conventional markers](#)

Affiliations Expand

- PMID: 42726765
- DOI: [10.1371/journal.pone.0357923](https://doi.org/10.1371/journal.pone.0357923)

Abstract

Background: Chronic obstructive pulmonary disease (COPD) is a heterogeneous disorder with diverse inflammatory profiles. Long-term oxygen therapy (LTOT) identifies a subgroup of patients with advanced disease; however, the systemic inflammatory characteristics of this population remain incompletely defined.

Objective: To investigate systemic inflammatory markers in clinically stable COPD patients according to LTOT status and to examine whether elevated NLR reflects conventional inflammatory activation or a distinct immune profile.

Methods: This study represents a secondary, exploratory subgroup analysis of a prospectively collected COPD cohort. Patients were stratified according to LTOT status and compared in terms of pulmonary function, gas exchange parameters, and inflammatory markers. NLR was analyzed in relation to total leukocyte count (WBC), C-reactive protein (CRP), eosinophil count, and oxygenation parameters. Between-group comparisons were performed using non-parametric tests, and correlation and multivariable regression analyses were conducted to identify independent associations with NLR.

Results: A total of 127 clinically stable COPD patients were included, of whom 31 (24.4%) were receiving LTOT. LTOT-treated patients had significantly higher NLR values compared with non-LTOT patients (6.32 ± 4.87 vs 3.68 ± 2.41 , $p = 0.001$), accompanied by lower lymphocyte and eosinophil counts. In contrast, total leukocyte count and CRP levels were similar between groups. In multivariable analysis, WBC, eosinophil count, and CRP remained independently associated with NLR, whereas oxygenation parameters and pulmonary function measures were not.

Conclusions: This study suggests that NLR elevation in advanced COPD may not necessarily reflect overt systemic inflammation, but rather a distinct immune phenotype. Context-specific interpretation of NLR may therefore be required in advanced disease.

Copyright: © 2026 Colakoglu, Ozsahin. This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Conflict of interest statement

The authors have declared that no competing interests exist.

Supplementary info

MeSH terms, SubstancesExpand

Full text links



[Proceed to details](#)

Cite

3

Pulm Circ

-
-
-

. 2026 Sep 10;16(3):e70409.

doi: 10.1002/pul2.70409. eCollection 2026 Jul.

[Pathogenesis and Phenotypes of Pulmonary Vascular Disease in COPD: A Consensus Statement From the Pulmonary Vascular Research Institute's Innovative Drug Development Initiative - PH Group 3 Workstream](#)

[Lucilla Piccari](#)¹, [Katarina Zeder](#)², [Aparna Balasubramanian](#)³, [Brian W Allwood](#)⁴, [Stephen John Wort](#)⁵, [Shelsey W Johnson](#)⁶, [Reda E Girgis](#)⁷, [Oksana A Shlobin](#)⁸, [Steven H Abman](#)⁹, [Gabor Kovacs](#)¹⁰, [George Washko](#)¹¹, [Sylvia M Nikkho](#)¹², [Steven D Nathan](#)¹³

Affiliations Expand

- PMID: 42725037
- PMCID: [PMC13560002](#)
- DOI: [10.1002/pul2.70409](#)

Abstract

Chronic obstructive pulmonary disease (COPD) is frequently associated with pulmonary vascular disease (PVD) yet pulmonary vascular involvement remains underrecognized and incompletely phenotyped. Emerging evidence demonstrates that pulmonary vasculopathy may precede overt emphysema and airflow obstruction, suggesting that vascular remodeling is an early and integral component of COPD pathobiology rather than solely a late consequence of advanced lung disease. Multiple mechanisms contribute to COPD-associated PVD, including genetic susceptibility, abnormal lung development, cigarette smoke and environmental exposures, endothelial dysfunction, hypoxia, inflammation, hyperinflation, and comorbid cardiovascular and infectious diseases, which are discussed in this paper. These processes lead to heterogeneous clinical

phenotypes that span a continuum from early pulmonary vascular abnormalities without resting PH to severe hemodynamically defined PH. Conventional spirometry and resting hemodynamics incompletely capture this complexity, whereas advanced imaging, gas-exchange assessment, and exercise testing improve identification of pulmonary vascular involvement. Distinct pulmonary vascular phenotypes may carry important implications for exercise limitation, exacerbation risk, progression, and survival. Recognizing COPD-associated PVD as a continuum rather than a late-stage complication has major implications for screening, phenotyping, and clinical trial design. This article reflects deliberations of the Pulmonary Vascular Research Institute's Innovative Drug Development Initiative (PVRI IDDI) Group 3 Pulmonary Hypertension Workstream on the pathophysiology and phenotypes of PVD in COPD.

Keywords: COPD; pathogenesis; phenotypes; pulmonary hypertension; pulmonary vascular disease.

© 2026 The Author(s). Pulmonary Circulation published by John Wiley & Sons Ltd on behalf of Pulmonary Vascular Research Institute.

Conflict of interest statement

Lucilla Piccari*, reports no conflicts. Katarina Zeder*, received grants from CMREF and United Therapeutics and honoraria from AstraZeneca. Aparna Balasubramanian, reports no conflicts. Brian W. Allwood, reports no conflicts. Stephen John Wort, Dr Wort has received honoraria from MSD, Ferrer Bayer and Janssen. He has received research grants from Ferrer. Shelsey W. Johnson, reports no conflicts. Reda E. Girgis, reports no conflicts. Oksana Shlobin, reports no conflicts. Steven H. Abman, serves as consultant to Chiesi Pharmaceuticals and serves as chairperson of a data safety monitoring board for Bayer Pharmaceutical. Gabor Kovacs, reports no conflicts. George Washko, reports no conflicts. Sylvia M. Nikkho is an employee of Bayer AG. Steven D. Nathan, reports no conflicts.

Full text links



[Proceed to details](#)

Cite

4

ASAIO J

-
-
-

. 2026 Sep 10.

doi: 10.1097/MAT.0000000000002848. Online ahead of print.

[Hybrid Respiratory Dialysis for Ultra-Low Blood-Flow Extracorporeal CO2 Removal](#)

[Nicholas X Williams¹](#), [Cameron C Jones¹](#), [Rene DeBrabander¹](#), [Brian Y Chang¹](#), [Steven P Keller^{2,3}](#)

Affiliations Expand

- PMID: 42721477
- DOI: [10.1097/MAT.0000000000002848](https://doi.org/10.1097/MAT.0000000000002848)

Abstract

Extracorporeal carbon dioxide removal (ECCO₂R) has emerged as a promising therapeutic avenue to address the challenges of CO₂ accumulation during chronic obstructive pulmonary disease (COPD) exacerbations. Current COPD exacerbation interventions rely on invasive mechanical ventilation to support respiration, which can rapidly induce diaphragmatic atrophy and frequently leaves patients indefinitely reliant on a ventilator. Extracorporeal carbon dioxide removal could be a suitable modality to stabilize these critically ill patients; however, current implementations rely on either purely bicarbonate dialysis, which does not address acidemia, or a gas exchanger, which necessitates high blood flow rates. Herein, we describe a custom hybrid system for combined bicarbonate and gaseous CO₂ elimination, achieving 123 ± 4 ml/min CO₂ removal with direct pH adjustment at blood flow rates of 250 ml/min. This is achieved through the combination of 101 ± 2 ml/min bicarbonate removal from a dialysis methodology and 21 ± 2 ml/min CO₂ removal across a novel, custom-built gas exchange device. Hence, this system is for COPD patients with hypercapnic respiratory failure across the dynamic respiratory demands of an exacerbation event. This amalgamation not only amplifies CO₂ removal rates but also enables a less invasive therapeutic approach.

Keywords: bicarbonate dialysis; chronic obstructive pulmonary disease; extracorporeal carbon dioxide removal; hypercapnic respiratory failure; respiratory dialysis.

Copyright © ASAIO 2026.

- [38 references](#)

Full text links



[Proceed to details](#)

Cite

5

J Med Chem

-
-
-

. 2026 Sep 10;69(17):20859-20876.

doi: 10.1021/acs.jmedchem.6c01820.

The Discovery of GSK3227634: A Potent Inhaled Inhibitor of the KEAP1/NRF2 Protein-Protein Interaction for the Treatment of Chronic Obstructive Pulmonary Disease

James F Callahan¹, Thomas G Davies², Marcus Bantscheff³, Sabrina Bedard¹, Jeffrey Boehm¹, Catherine Booth-Genthe¹, Nestor Concha¹, Roy Copley⁴, Alicia Davis¹, Roderick Davis¹, Dirk Eberhard³, Joseph Foley¹, Pearl Flamberg¹, Nicole C Goodwin¹, Tom D Heightman², Steven R Katchur¹, Jeffrey K Kerns¹, Casey Kmetz¹, Charles J Kotzer¹, Philip Landis¹, Tindy Li¹, Derrick Meinhold¹, Marcel Mülbaier³, Hong Nie¹, Ruth R Osborn¹, Torren M Peakman², Brian Peck¹, Patricia L Podolin¹, Thomas Sweitzer¹, Hongxing Yan¹, Paris Ward¹, Thilo Werner³, Lawrence A Wolfe Iii¹, Alison J-A Woolford², Zining Wu¹, Yolanda Sanchez¹, William L Rumsey¹

Affiliations Expand

- PMID: 42720473
- DOI: [10.1021/acs.jmedchem.6c01820](https://doi.org/10.1021/acs.jmedchem.6c01820)

Abstract

KEAP1 is the key regulator of the NRF2-mediated cytoprotective response and a target for pathologies involving oxidative stress. Compounds that covalently modify KEAP1 to activate NRF2 are clinically validated; however, their chemical reactivity may drive increased off-target activity. A more selective approach involves inhibition of the KEAP1-NRF2 protein-protein interaction as exemplified by our previous bis-aryl lead KI-696 (4). We now describe the lead optimization of the bis-aryl series that focused on increasing the population of the bioactive conformation of the free ligand to drive potency while optimizing overall physicochemical properties. This resulted in the discovery of GSK3227634 (5), an ultrahigh-affinity noncovalent inhibitor of KEAP1-NRF2 (surface plasmon resonance pK_d = 10.9) and the first NRF2 activator to demonstrate target engagement and efficacy in preclinical models of oxidative stress via direct delivery to the lung. Compound 5 therefore represents a novel potential agent to treat lung diseases involving oxidative stress, such as chronic obstructive pulmonary disease.

© 2026 The Authors. Published by American Chemical Society.

Supplementary info

MeSH terms, SubstancesExpand

Full text links



[Proceed to details](#)

Cite

6

Thorax

-
-
-

. 2026 Sep 9:thorax-2026-225507.

doi: 10.1136/thorax-2026-225507. Online ahead of print.

Associations between accelerated lung function decline and cardiovascular outcomes: a systematic review

Jiaxin Li¹, Yaoyao Qian¹, Jennifer Perret¹, Jingwen Zhang¹, Nur Sabrina Idrose¹, Xin Dai¹, Anurika P De Silva^{2,3}, Shyamali C Dharmage¹, Caroline J Lodge^{#1}, Dinh S Bui^{#4}

Affiliations Expand

- PMID: 42716782
- DOI: [10.1136/thorax-2026-225507](https://doi.org/10.1136/thorax-2026-225507)

Abstract

Background: Emerging evidence suggests that lung function decline may be linked to cardiovascular disease (CVD), but this has not been synthesised to date. This review aims to synthesise the current evidence on accelerated lung function decline and cardiovascular outcomes.

Methods: We systematically searched MEDLINE, Embase and PubMed from inception to May 2026 for studies evaluating longitudinal changes in lung function in adults in relation to CVD. Study quality was assessed using the Risk Of Bias In Non-randomised Studies of Exposure tool, and findings were synthesised narratively.

Findings: Of 6772 studies identified from the search, 15 publications met the inclusion criteria: 12 general population cohorts, 2 occupational cohorts and 1 chronic obstructive pulmonary disease (COPD) cohort. In the general/occupational population, accelerated lung function decline was consistently associated with increased cardiovascular risk, with a uniformly positive directional trend and HRs ranging from 1.07 to 1.36 for forced expiratory volume in 1 s (FEV₁) and 1.06 to 1.33 for forced vital capacity. Similar trends were observed for CVD-related biomarkers, risk factors and subclinical cardiovascular phenotypes (eg, HRs 1.04-1.66 for accelerated FEV₁ decline). Potential effect modifiers of these associations such as smoking were reported. However, the association between accelerated lung function decline and CVD mortality in the general population remains inconclusive.

In two occupational cohorts, lung function decline was associated with higher CVD mortality risk (HRs 2.05-2.59).

Interpretation: Dear Dinh,I have checked the proof and made the necessary changes. Would you like to review it before I submit it?Best regards,JiaxinIn ageing populations, tracking the rate of lung function decline may help identify not only those at risk of COPD but also those at risk of CVD.

Keywords: Respiratory Function Tests; Systemic disease and lungs.

© 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.

Full text links



[Proceed to details](#)

Cite

7

Review

Eur Respir Rev

-
-
-

. 2026 Sep 9;35(181):250340.

doi: 10.1183/16000617.0340-2025. Print 2026 Jul.

[Frailty and COPD: a bidirectional relationship in the context of systemic and accelerated ageing](#)

[Mauro Maniscalco](#)^{1,2}, [Claudio Candia](#)³, [Salvatore Fuschillo](#)⁴, [Pasquale Ambrosino](#)⁵, [Klara Komici](#)⁶, [Giuseppe Rengo](#)^{3,7}

Affiliations Expand

- PMID: 42716547
- DOI: [10.1183/16000617.0340-2025](https://doi.org/10.1183/16000617.0340-2025)

Free article

Abstract

Chronic obstructive pulmonary disease (COPD) is increasingly recognised as a systemic disorder that extends beyond the lungs, representing a clinical model of accelerated ageing. Frailty, a multidimensional syndrome characterised by reduced physiological reserve and increased vulnerability to stressors, is highly prevalent among individuals with COPD and contributes to adverse outcomes. Both conditions share common biological mechanisms, including chronic inflammation, oxidative stress, endocrine dysregulation, mitochondrial dysfunction and skeletal muscle atrophy. Exercise acts as a physiological stressor that elicits hormetic responses, triggering favourable molecular adaptations such as enhanced mitochondrial biogenesis, improved redox balance and the upregulation of antioxidant and cellular repair pathways. These adaptations translate into improved muscle function, metabolic efficiency and immune homeostasis, thereby counteracting the catabolic processes that underlie both frailty and COPD progression. Scientific evidence supports the role of combined aerobic, resistance and balance training as the most effective approach to improving functional status and quality of life in frail individuals with COPD. Frailty in COPD represents a potentially reversible state of systemic vulnerability rooted in accelerated biological ageing. Exercise thus constitutes a powerful, multi-target intervention capable of reprogramming molecular ageing pathways and promoting resilience across organ systems. Integrating exercise physiology with the principles of geroscience offers a promising framework for personalised rehabilitation strategies aimed at extending health span in patients with COPD. This narrative review summarises current evidence on the biological and clinical interplay between COPD, frailty and exercise, exploring how physical activity exerts systemic anti-ageing effects through modulation of inflammation, oxidative stress, mitochondrial and myokine signalling, ultimately restoring physiological resilience.

Copyright ©The authors 2026.

Conflict of interest statement

Conflict of interest: M. Maniscalco reports payment or honoraria for lectures, presentations, manuscript writing or educational events from GSK and Damor, and participation on a data safety monitoring board or advisory board with GSK. C. Candia, S. Fuschillo, P. Ambrosino, K. Komici and G. Rengo have nothing to disclose.

Supplementary info

Publication types, MeSH termsExpand

Full text links



[Proceed to details](#)

Cite

8

Chest

-
-
-

. 2026 Sep 9:S0012-3692(26)06552-9.

doi: 10.1016/j.chest.2026.06.076. Online ahead of print.

Assessing the impact of earlier initiation of biologics on clinical remission and other outcomes in a global real-life severe asthma cohort from CHRONICLE, ISAR and OPCR

Giorgio Walter Canonica¹, George C Christoff², Ming-Ju Tsai³, Trung N Tran⁴, John Townend⁵, Ghislaine Scelo⁵, Aaron Beasall⁵, Lakmini Bulathsinhala⁵, John Busby⁵, Andrew W Lindsley⁶, Wendy C Moore⁷, Reynold A Panettieri Jr⁸, Enrico Heffler¹, Cristina Cardini⁹, Giuseppe Guida¹⁰, Eileen Wang¹¹, Michael E Wechsler¹², Nicholas Chapman¹³, Flavia Hoyte¹⁴, Rohit K Katial¹⁴, Kanao Otsu¹⁴, Celeste M Porsbjerg¹⁵, Anne-Sofie Bjerrum¹⁶, Anna von Bülow¹⁷, Susanne Hansen¹⁸, Ole Hilberg¹⁹, Kjell Erik Julius Håkansson¹⁵, Marianne Baastrop Søndergaard¹⁵, Charlotte Suppli Ulrik²⁰, Liam G Heaney²¹, David J Jackson²², Pujan H Patel²³, Paul E Pfeffer²⁴, Dermot Ryan²⁵, Piotr Kuna²⁶, Celine Bergeron²⁷, Shawn D Aaron²⁸, Shelley Abercromby²⁹, Mohit Bhutani³⁰, Kenneth R Chapman³¹, Andréanne Côté³², Beth E Davis³³, Delbert R Dorscheid³⁴, Leiana Hoshyari³⁴, Brianne Philipenko³⁵, Mohsen Sadatsafavi³⁶, Hana Serajeddini³⁷, Désirée Larenas-Linnemann³⁸, Borja G Cosio³⁹, Luis Perez-de-Llano⁴⁰, Carlos A Torres-Duque⁴¹, María José Fernández-Sánchez⁴², Elizabeth Garcia⁴³, Fabio Bolívar-Grimaldos⁴⁴, Libardo Jiménez-Maldonado⁴⁵, Diana Jimena Cano-Rosales⁴⁴, Ivan Solarte⁴⁶, Florence Schleich⁴⁷, Renaud Louis⁴⁸, Riyad Al-Lehebi⁴⁹, Adeeb A Bulkhi⁵⁰, Yahya Habis⁵¹, Mona Al-Ahmad⁵², Bassam Mahboub⁵³, Laila Salameh⁵⁴, Paulo Márcio Pitrez⁵⁵, Takashi Iwanaga⁵⁶, Soichiro Hozawa⁵⁷, Hisako Matsumoto⁵⁸, Tatsuya Nagano⁵⁹, Tomoko Tajiri⁶⁰, João A Fonseca⁶¹, Ana Alves da Silva⁶¹, Cláudia Chaves Loureiro⁶², Hadassa Cristhina de Azevedo Soares Dos Santos⁶¹, Nikolaos G Papadopoulos⁶³, Konstantinos Kostikas⁶⁴, Mina Gaga⁶⁵, Athena Gogali⁶⁴, Maria Kallieri⁶⁶, Stelios Loukides⁶⁶, Michael Makris⁶⁷, Maria Ntakoula⁶⁷, Andriana I Papaioannou⁶⁸, Giannis Paraskevopoulos⁶⁹, Fotios Psarros⁷⁰, Diahn-Warng Perng⁷¹, Yi-Han Hsiao⁷², Pin-Kuei Fu⁷³, Chau-Chyun Sheu⁷³, Bernt Bøggvald Aarli⁷⁴, Todor A Popov⁷⁵, Mariko Siyue Koh⁷⁶, Mei Fong Liew⁷⁷, Pee Hwee Pang⁷⁸, Tze Lee Tan⁷⁹, Tunn Ren Tay⁸⁰, Chin Kook Rhee⁸¹, Jorge Máspero⁸², Ledit R F Arduzzo⁸³, María Eugenia Franchi⁸⁴, Martin Sivori⁸⁵, Ana María Stok⁸⁶, Anahí Yañez⁸⁷, Njira Lugogo⁸⁸, Arjun Mohan⁸⁸, Patrick D Mitchell⁸⁹, Alan Altraja⁹⁰, Sundeep Salvi⁹¹, Richard W Costello⁹², Eve J Denton⁹³, Mark Hew⁹⁴, Christine Jenkins⁹⁵, David Langton⁹⁶, Peter G Middleton⁹⁷, Matthew J Peters⁹⁸, Lauri Lehtimäki⁹⁹, Arnaud Bourdin¹⁰⁰, Camille Taillé¹⁰¹, Christian Taube¹⁰², Zsuzsanna Csoma¹⁰³, Dóra Lúdvíksdóttir¹⁰⁴, Job F M van Boven¹⁰⁵, James Fingleton¹⁰⁶, Helena Emery¹⁰⁷, Graham Lough¹⁰⁸, Valeria Perugini¹⁰⁷, Leif Bjerrmer¹⁰⁹, Diego J Maselli¹¹⁰, Roy Alton Pleasants¹¹¹, Christopher S Ambrose⁴, Benjamin Emmanuel⁴, Cathy Emmas¹¹², Andrew N Menzies-Gow¹¹³, Amit D Parulekar⁴, Victoria Carter⁵, Nevaashni Eleangovan⁵, Ruth B Murray⁵, Chris A Price⁵, John D Blakey¹¹⁴, David B Price¹¹⁵, ISAR GLEAM Working Group

Affiliations Expand

- PMID: 42716466
- DOI: [10.1016/j.chest.2026.06.076](https://doi.org/10.1016/j.chest.2026.06.076)

Abstract

Background: Biologics are generally reserved for severe asthma (SA) after standard treatments have failed. Their recommendation is based on randomized controlled trials, designed to assess efficacy but not the optimal timing for biologic initiation.

Research question: Does the timing of biologic initiation affect SA outcomes, including remission?

Study design and methods: This was a cohort study using data from the International Severe Asthma Registry, the CHRONICLE US SA registry, and the UK Optimum Patient Care Research Database, together comprising data from 26 countries. The duration of time to biologic initiation was described using several proxies (e.g., duration of asthma, potential SA [PSA], lung function impairment, and frequent exacerbations, all pre-biologic). The associations between these proxies and clinical remission, exacerbations, asthma control, lung function, and oral corticosteroid (OCS) use were assessed.

Results: 9,241 patients were included in the association analyses. Overall, the likelihood of achieving improvement in each outcome post-biologic decreased with increasing time-to-biologic-initiation. The odds of achieving clinical remission 12-months post-biologic initiation were reduced for every 10 years patients had asthma pre-biologic (0.86 [0.84, 0.88], PSA (0.78 [0.63, 0.96]), and lung function impairment (0.24 [0.21, 0.28]) and for every 10 grams lifetime cumulative OCS dose (0.54 [0.30, 0.98]). For every 10-years patients had PSA pre-biologic, post-biologic exacerbation rates were 1.08 [1.03, 1.13] times higher, lung function improvement was 2.35% [-3.18, -1.51] less, and the odds of having well- or partly-controlled asthma was 12% lower (0.88 [0.53, 1.47]).

Interpretation: Earlier initiation of biologics in individuals with SA is associated with better clinical outcomes, suggesting the need to modify approaches to asthma management from a 'reserve' to a 'preserve' approach: i.e., not reserving biologics for those with long-standing SA, instead preserving patients' lung function and possibly increasing the likelihood of better clinical outcomes with earlier biologic initiation.

Clinical trial registration: CHRONICLE - ClinicalTrials.gov identifier: [NCT03373045](https://clinicaltrials.gov/ct2/show/study/NCT03373045).

Keywords: control; exacerbation; lung function; oral corticosteroid.

Copyright © 2026. Published by Elsevier Inc.

Supplementary info

Associated dataExpand

Full text links

[Proceed to details](#)

Cite

9

Editorial

Eur Respir J

-
-
-

. 2026 Sep 8;68(3):2600883.

doi: 10.1183/13993003.00883-2026. Print 2026 Sep.

[Blood eosinophils: questioning what we call "normal"](#)

[Pearl Gupta](#)^{1 2}, [John D Blakey](#)^{1 2 3}, [Sanjay Ramakrishnan](#)^{4 2 5}

Affiliations Expand

- PMID: 42710916
- DOI: [10.1183/13993003.00883-2026](#)

No abstract available

Conflict of interest statement

Conflict of interest: P. Gupta reports no conflict of interest. J.D. Blakey reports grants from Asthma Australia, Chiesi, Avant Mutual, Telethon, Medical Research Future Fund, Charlie's Foundation and the International Primary Care Respiratory Group, consultancy fees and payment or honoraria for lectures, presentations, manuscript writing or educational events from AstraZeneca, Chiesi, GSK and Sanofi, support for attending meetings from Astra Zeneca, Chiesi and GSK, and is a medical advisor for Asthma Australia. S. Ramakrishnan reports salary support from the National Institute for Health and Social Care Research (NIHR) UK and Charlie's Foundation for Research, grants from NHMRC, Medical Research Future Fund and Raine Medical Research Fund, consultancy fees from Connect BioPharma and Sanofi, speaker fees from GSK, Sanofi, Chiesi, Boehringer Ingelheim and AstraZeneca, conference travel support from GSK, Sanofi, Boehringer Ingelheim and AstraZeneca, participation on a data safety monitoring board or advisory board with GSK, Sanofi-Regeneron, AstraZeneca and ConnectBio, and a leadership role with the Thoracic Society of Australia and New Zealand (TSANZ) (deputy convenor of the COPD special interest group).

Comment on

- [Distribution of blood eosinophil counts in the Chinese general population.](#)

Yao P, Yang L, Liu D, He D, Li L, Lin Y, Huang J, Li W. Eur Respir J. 2026 Sep 8;68(3):2501570. doi: 10.1183/13993003.01570-2025. Print 2026 Sep. PMID: 42067210 Free PMC article.

Supplementary info

Publication typesExpand

Full text links



[Proceed to details](#)

Cite

10

Lancet Respir Med

-
-
-

. 2026 Sep 8:S2213-2600(26)00195-5.

doi: 10.1016/S2213-2600(26)00195-5. Online ahead of print.

[Risk factors for hospital admission and mortality in patients with influenza virus infection: a systematic review and meta-analysis](#)

[Ya Gao](#)¹, [Ming Liu](#)², [Timothy M Uyeki](#)³, [Kenji Numata](#)⁴, [Yanjiao Shen](#)⁵, [Yunli Zhao](#)⁶, [Yamin Chen](#)⁷, [Zhifan Li](#)⁸, [Wanyu Zhao](#)⁹, [Xianlin Gu](#)¹⁰, [Luying Cheng](#)¹¹, [Liang Zhao](#)¹², [Wimonchat Tangamornsuksan](#)¹³, [Qingyong Zheng](#)¹⁴, [Jianquo Xu](#)¹⁴, [Mary Katharine Kennedy](#)¹⁵, [Li Zheng](#)¹⁶, [Jiyuan Shi](#)¹⁷, [Fuzhong Xue](#)¹⁸, [Jinhui Tian](#)¹⁴, [Gordon Guyatt](#)¹⁹, [Qiukui Hao](#)²⁰

Affiliations Expand

- PMID: 42710513
- DOI: [10.1016/S2213-2600\(26\)00195-5](#)

Abstract

Background: Identifying risk factors associated with hospital admission and mortality in patients with influenza is crucial for guiding clinical management and public health strategies. To support an update of WHO influenza clinical guidelines,

this systematic review and meta-analysis assessed risk factors for hospital admission and all-cause mortality in patients with seasonal influenza.

Methods: We systematically searched Medline, Embase, Cochrane Central Register of Controlled Trials, Cumulative Index to Nursing and Allied Health Literature, and Global Health for observational studies published from Jan 1, 2000, until Oct 30, 2025, that enrolled patients of any age with laboratory-confirmed seasonal influenza and reported an adjusted effect estimate for the association between at least one risk factor and hospital admission or all-cause mortality, or both. We conducted inverse-variance random-effects model meta-analyses to summarise the evidence and assessed the certainty of evidence using the GRADE approach. We registered the protocol with PROSPERO, CRD42024535669.

Findings: We identified 35 808 records, of which 63 studies enrolling 2 150 518 participants (mean age 3·6-87·9 years) were eligible. In patients with non-severe influenza, evidence with moderate or high certainty showed that older age (odds ratio 1·72 per 10-year increase for adults [95% CI 1·02-2·89]); cardiovascular disease (2·72 [1·24-5·94]); HIV, immunodeficiency, or immunosuppression (2·70 [1·55-4·70]); chronic respiratory disease (2·24 [1·90-2·64]); and any neurological disease (2·31 [1·65-3·24]) were major risk factors for hospital admission-pregnancy (1·88 [1·73-2·05]), diabetes (1·84 [1·26-2·67]), and malignancy (1·75 [1·12-2·75]) were additional risk factors for hospital admission. In patients with severe influenza, evidence with moderate or high certainty showed that secondary bacterial infection (4·13 [1·53-11·14]), malnutrition (3·29 [1·57-6·89]), sepsis (3·19 [2·08-4·89]), acute kidney injury (2·92 [1·11-7·73]), age 65 years or older (2·47 [2·21-2·75]), chronic cardiovascular disease (2·43 [1·16-5·09]), malignancy (2·21 [1·31-3·72]), and chronic neurological disease (2·08 [1·13-3·83]) were major risk factors for all-cause mortality-any liver disease (1·86 [1·35-2·58]); HIV, immunodeficiency, or immunosuppression (1·79 [1·51-2·13]), and chronic obstructive pulmonary disease (1·74 [1·37-2·20]) were additional risk factors for all-cause mortality.

Interpretation: Age 65 years or older, immunocompromised status, cardiovascular disease, neurological disease, and chronic respiratory disease are major risk factors for hospital admission in patients with non-severe seasonal influenza. Secondary bacterial infection, malnutrition, sepsis, acute kidney injury, age 65 years or older, chronic cardiovascular disease, malignancy, and chronic neurological disease are major risk factors for all-cause mortality in patients with severe seasonal influenza. Our findings support risk stratification and targeted prevention and treatment strategies for seasonal influenza.

Funding: WHO.

Copyright © 2026 Elsevier Ltd. All rights reserved, including those for text and data mining, AI training, and similar technologies.

Conflict of interest statement

Declaration of interests We declare no competing interests.

Full text links



[Proceed to details](#)

Cite

11

Respir Investig

-
-
-

. 2026 Sep 8;64(6):101484.

doi: 10.1016/j.resinv.2026.101484. Online ahead of print.

[Relationship between physical activity and muscle mass or quality in chronic obstructive pulmonary disease patients](#)

[Seigo Sasaki](#)¹, [Yoshiaki Minakata](#)², [Hideya Ono](#)¹, [Yusuke Murakami](#)¹, [Koichiro Takahashi](#)³, [Kazuhisa Asai](#)⁴, [Masanori Nakanishi](#)⁵, [Tsunahiko Hirano](#)⁶, [Kazuto Matsunaga](#)⁶

Affiliations Expand

- PMID: 42710261
- DOI: [10.1016/j.resinv.2026.101484](#)

Abstract

Background: Physical activity (PA) is an important prognostic factor for chronic obstructive pulmonary disease (COPD). Relationships between PA and the muscle mass and quality have been reported, but whether PA is more strongly associated with the muscle mass or quality remains unclear.

Methods: Baseline data from patients who participated in a randomized controlled trial evaluating the efficacy of providing individual target steps on step count were used. We investigated the relationship between PA measured by accelerometers and muscle mass, evaluated using the skeletal muscle index (SMI), cross-sectional area (CSA) of the pectoralis muscle, CSA of the dorsal muscle group (DMGCSA), and the muscle quality evaluated by phase angle (PhA) in 78 patients with COPD.

Results: The step count was correlated with PhA, and the duration of PA at ≥ 3.0 metabolic equivalents (METs) was correlated with DMGCSA, and PhA. The duration of behavior at 1.0-1.5 METs correlated with DMGCSA and PhA. A multiple regression analysis showed that PhA and modified Medical Research Council dyspnea scale, but not any parameters of muscle mass, were independently associated with step count and duration at ≥ 3.0 METs. The duration at 1.0-1.5 METs was independently associated with only DMGCSA.

Conclusion: Although PA and Sedentary behavior (SB) was significantly correlated with both the muscle quality and mass, PA was more strongly influenced by the muscle quality than by muscle mass, whereas SB was strongly influenced by dorsal muscle group mass.

Clinical trial registration: UMIN000046390.

Keywords: Dorsal muscle group; Pectoralis muscle; Phase angle; Physical activity; Sedentary behavior.

Copyright © 2026 The Japanese Respiratory Society. Published by Elsevier B.V. All rights reserved.

Conflict of interest statement

Declaration of competing interest Yoshiaki Minakata received a lecture fee from Nippon Boehringer Ingelheim. Koichiro Takahashi received lecture fees from AstraZeneca, GlaxoSmithKline, Nippon Boehringer Ingelheim, and Sanofi. Kazuhisa Asai received lecture fees from AstraZeneca, GlaxoSmithKline, Nippon Boehringer Ingelheim, Novartis and Sanofi. Tsunahiko Hirano received lecture fees from AstraZeneca, Sanofi, GSK, and Kyorin Pharmaceutical. Kazuto Matsunaga received lecture fees from AstraZeneca, Sanofi, GSK, Novartis Pharma, Kyorin Pharmaceutical, and Boehringer Ingelheim. The other authors declare no conflicts of interest.

Full text links



[Proceed to details](#)

Cite

12

JAMA Intern Med

-
-
-

. 2026 Sep 8.

doi: 10.1001/jamainternmed.2026.4365. Online ahead of print.

[**Chronic Obstructive Pulmonary Disease-Related Years of Life Lost as a Prognostic Signal**](#)

[**Yong Xu¹, Bo Tao¹**](#)

Affiliations Expand

- PMID: 42709457

- DOI: [10.1001/jamainternmed.2026.4365](https://doi.org/10.1001/jamainternmed.2026.4365)

No abstract available

Full text links



[Proceed to details](#)

Cite

13

JAMA Intern Med

-
-
-

. 2026 Sep 8.

doi: 10.1001/jamainternmed.2026.4368. Online ahead of print.

[Chronic Obstructive Pulmonary Disease-Related Years of Life Lost as a Prognostic Signal-Reply](#)

[Surya P Bhatt](#)^{1,2}, [Yifei Sun](#)³, [Elizabeth C Oelsner](#)⁴

Affiliations Expand

- PMID: 42709451
- DOI: [10.1001/jamainternmed.2026.4368](https://doi.org/10.1001/jamainternmed.2026.4368)

No abstract available

Full text links



[Proceed to details](#)

Cite

14

Review

Pulm Ther

-
-
-

. 2026 Sep 8.

doi: 10.1007/s41030-026-00385-8. Online ahead of print.

Cough in Interstitial Lung Disease: Current Knowledge and Research Gaps

Giacomo Giulianelli^{#1}, **Serena Bellani**^{#2,3}, **Gioele Castelli**^{2,3}, **Giordano Fiorentù**^{2,3}, **Elisabetta Balestro**², **Surinder S Birring**⁴, **Paolo Spagnolo**²

Affiliations Expand

- PMID: 42709401
- DOI: [10.1007/s41030-026-00385-8](https://doi.org/10.1007/s41030-026-00385-8)

Free article

Abstract

Chronic cough is one of the most frequent and burdensome symptoms in patients with interstitial lung disease (ILD), substantially impairing quality of life and, in idiopathic pulmonary fibrosis (IPF), being associated with disease progression. Despite its clinical relevance, the mechanisms underlying cough in ILD remain incompletely understood, and effective therapeutic options are limited. This narrative review summarizes current evidence on the epidemiology, pathophysiology, clinical assessment, and management of cough across the spectrum of ILD. Current data support the concept that ILD-related cough results from a complex interplay between cough reflex hypersensitivity, mechanical distortion of the fibrotic lung, airway and parenchymal inflammation, neural remodeling, and common comorbidities such as gastroesophageal reflux disease and obstructive sleep apnea. Disease-specific mechanisms are also discussed in connective tissue disease-associated ILD, sarcoidosis, and hypersensitivity pneumonitis. We review currently available qualitative and quantitative methods for cough assessment, including patient-reported outcome measures and objective cough monitoring technologies, highlighting their strengths and limitations in clinical practice and research. Finally, we examine established and emerging therapeutic approaches. While antifibrotic therapies have shown limited and inconsistent effects on cough, recent randomized clinical trials provide encouraging evidence for low-dose morphine and extended-release nalbuphine in IPF-associated chronic cough. Nonpharmacological interventions, particularly physiotherapy and speech and language therapy, also demonstrate meaningful benefits. Several novel therapeutic strategies targeting neural and inflammatory pathways are currently under investigation. A better understanding of the mechanisms driving cough in ILD, together with standardized assessment tools and adequately powered clinical trials, will be essential to develop effective, disease-specific treatments for this disabling symptom.

Keywords: Antitussive therapy; Chronic cough; Cough; Cough hypersensitivity; Idiopathic pulmonary fibrosis; Interstitial lung disease; Objective cough monitoring; Opioids; Patient-reported outcomes; Progressive pulmonary fibrosis.

© 2026. The Author(s).

Conflict of interest statement

Declarations. Ethical Approval: This article is based on previously conducted studies and does not contain any new studies with human participants or animals performed by any of the authors. **Conflict of Interest:** Giacomo Giulianelli, Serena Bellani, Gioele Castelli, and Giordano Fiorentù have nothing to disclose. Elisabetta Balestro reports consultancy fees from Boehringer Ingelheim and payment or honoraria for lectures, presentations, manuscript writing or educational events from Boehringer Ingelheim. Surinder S. Birring reports an investigator-initiated research grant from MSD, and consultancy fees unrelated to this work from Merck, GSK, Trevi, Axalbion, Nocion, and Nerre. Paolo Spagnolo reports grants from Chiesi, Roche, Boehringer Ingelheim, and PPM Services; consultancy fees from Chiesi Farmaceutici, Novartis, and PPM Services; payment or honoraria for lectures, presentations, manuscript writing, or educational events from Boehringer Ingelheim; and participation on a data safety monitoring board or advisory board with AstraZeneca, Boehringer Ingelheim, CSL Behring, GlycoCore Pharma, Merck, Novartis, Structure Therapeutics, and Trevi. Paolo Spagnolo and Surinder Birring are Editorial Board members of Pulmonary Therapy. Paolo Spagnolo and Surinder Birring were not involved in the selection of peer reviewers for the manuscript nor any of the subsequent editorial decisions.

- [119 references](#)

Supplementary info

Publication typesExpand

Full text links



[Proceed to details](#)

Cite

15

N Engl J Med

-
-
-

. 2026 Sep 8.

doi: 10.1056/NEJMoa2606998. Online ahead of print.

[Tozorakimab to Prevent COPD Exacerbations](#)

[Frank C Sciurba](#)¹, [Henrik Watz](#)^{2 3 4}, [Arnaud Bourdin](#)⁵, [Wim Janssens](#)⁶, [Fernando J Martinez](#)⁷, [Jinping Zheng](#)⁸, [Maarten van den Berge](#)⁹, [Matteo Bonini](#)^{10 11}, [MeiLan K Han](#)¹², [Dave Singh](#)^{13 14}, [Gerard J Criner](#)¹⁵, [Christopher E Brightling](#)¹⁶, [Alberto Papi](#)¹⁷, [Surya P Bhatt](#)¹⁸, [Martin Jenkins](#)¹⁹, [Marta Mikosz](#)²⁰, [Piotr Chołbiński](#)²⁰, [Monika Ziemiecka](#)²⁰, [Magnus Löfdahl](#)²¹, [Deepa Arya](#)²², [Madhavi Yadavalli](#)²³, [Bryan H Brodek](#)²⁴, [Malin Fagerås](#)²⁵, [Samuel Bardsley](#)²⁶, [Neil Martin](#)^{16 26}, [Rajesh Patel](#)²⁷, [Ioannis Psallidas](#)²⁸; [OBERON and TITANIA Trial Investigators](#)

Affiliations Expand

- PMID: 42708515
- DOI: [10.1056/NEJMoa2606998](https://doi.org/10.1056/NEJMoa2606998)

Abstract

Background: Many patients with chronic obstructive pulmonary disease (COPD) have exacerbations despite receiving standard-of-care inhaled maintenance therapy. Dysregulated interleukin-33 signaling is implicated in the pathogenesis of COPD. Tozorakimab is a monoclonal antibody that inhibits the activity of interleukin-33.

Methods: In two replicate phase 3 trials (OBERON and TITANIA), we enrolled adults with COPD who were current or former smokers and had a history of exacerbations in the previous year despite receiving stable standard-of-care inhaled maintenance therapy. There were no eligibility criteria related to blood eosinophil count. Patients were randomly assigned to receive add-on subcutaneous tozorakimab (300 mg) or placebo every 4 weeks for 52 weeks. The primary end point was the annualized rate of moderate or severe exacerbations that occurred over a 52-week period among former smokers, and the first key secondary end point was the annualized rate of moderate or severe exacerbations in the overall population. Safety was also assessed.

Results: The overall population in OBERON included 446 patients in the tozorakimab group and 431 in the placebo group, and in TITANIA included 438 in the tozorakimab group and 435 in the placebo group. The annualized rate of moderate or severe exacerbations among former smokers was 1.34 events in the tozorakimab group and 1.90 events in the placebo group (rate ratio, 0.71; 95% confidence interval [CI], 0.57 to 0.88; $P = 0.002$) in OBERON, and 1.37 events and 2.07 events, respectively (rate ratio, 0.66; 95% CI, 0.55 to 0.80; $P < 0.001$), in TITANIA. In the overall population, the annualized rate of moderate or severe exacerbations was 1.41 events in the tozorakimab group and 2.00 events in the placebo group (rate ratio, 0.70; 95% CI, 0.58 to 0.85; $P < 0.001$) in OBERON, and 1.44 events and 2.03 events, respectively (rate ratio, 0.71; 95% CI, 0.59 to 0.84; $P < 0.001$), in TITANIA. Adverse events occurred in 70.4% of the patients in the tozorakimab group and in 77.2% of those in the placebo group in OBERON, and in 80.1% and 79.8%, respectively, in TITANIA.

Conclusions: Among patients with COPD, treatment with tozorakimab resulted in a significantly lower rate of moderate or severe exacerbations than placebo in the cohort of former smokers and in the overall population of current and former

smokers. (Funded by AstraZeneca; OBERON ClinicalTrials.gov number, [NCT05166889](#); TITANIA ClinicalTrials.gov number, [NCT05158387](#)).

Copyright © 2026 Massachusetts Medical Society.

Supplementary info

Associated dataExpand

Full text links



[Proceed to details](#)

Cite

16

ERJ Open Res

-
-
-

. 2026 Sep 7;12(5):00269-2026.

doi: 10.1183/23120541.00269-2026. eCollection 2026 Sep.

[A protocol for validation of novel artificial intelligence-based framework for dyspnoea investigation with cardiopulmonary exercise testing](#)

[Abed A Hijleh](#)¹, [Danilo C Berton](#)², [Matthew D James](#)¹, [Reginald M Smyth](#)¹, [Sandra G Vincent](#)¹, [Madison Coyle](#)¹, [Devin Phillips](#)³, [Amany F Elbehairy](#)¹, [Nicolle J Domnik](#)^{1,4}, [Denis E O'Donnell](#)¹, [J Alberto Neder](#)¹

Affiliations Expand

- PMID: 42707527
- PMCID: [PMC13548444](#)
- DOI: [10.1183/23120541.00269-2026](#)

Abstract

Background: Exertional dyspnoea largely represents the sensory translation of an ever-growing dynamic mismatch between ventilatory demand and capacity as exercise intensifies. This fundamental tenet, however, has not been formally incorporated into data display and clinical interpretation of incremental cardiopulmonary exercise testing (CPET). The objectives of the present study were

to validate a novel framework (Dynamic Assessment of Dyspnoea and Ventilation on Exercise (DyVe-X)) to quantify the severity of exertional dyspnoea while exposing its mechanical-ventilatory underpinnings across progressively higher exercise intensities in subjects showing varied pre-test likelihood of abnormality.

Methods: Incremental CPET data from three large cohorts of tobacco-exposed subjects: smokers and ex-smokers at risk for, or at different stages of, COPD (n=1161). Based on recently published normative data, a homonymous software (DyVe-X 1.0.0 Kingston, ON, Canada) uses an algorithm based on artificial intelligence techniques to establish the burden of 1) exertional dyspnoea *versus* work rate and ventilation, 2) excessive breathing (low submaximal ventilatory reserve, high dyspnoea-work rate but preserved dyspnoea-ventilation), and 3) constrained breathing (reduced inspiratory reserve, high dyspnoea-work rate and dyspnoea-ventilation). We hypothesise that categories of progressive mechanical-ventilatory abnormalities, based on DyVe-X, would exhibit progressively worse physiological and sensory CPET outcomes. Using the current key criterion to indicate ventilatory limitation to exercise (peak breathing reserve $\leq 15\%$) as the comparator, we anticipate a superior performance of DyVe-X in exposing dyspnoea-generating mechanical-ventilatory abnormalities across cohorts.

Implications: This study may validate an original framework for investigating dyspnoea using CPET, characterised by continuous assessment of symptom intensity and time course, in light of the rate of dynamic depletion of mechanical-ventilatory reserves.

Copyright ©The authors 2026.

Conflict of interest statement

Conflict of interest: J.A. Neder is an associate editor of this journal. The remaining authors report no conflicts of interest.

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

Full text links



[Proceed to details](#)

Cite

17

ERJ Open Res

-
-
-

. 2026 Sep 7;12(5):01516-2025.

doi: 10.1183/23120541.01516-2025. eCollection 2026 Sep.

Beyond random variation: Monte Carlo analysis and predictability of COPD exacerbations

Surya P Bhatt^{1 2}, **Sandeep Bodduluri**^{1 2 3}, **Abdulhakim Tlimat**², **Arie Nakhmani**^{1 3}, **Mohsen Sadatsafavi**⁴

Affiliations Expand

- PMID: 42707515
- PMCID: [PMC13548451](#)
- DOI: [10.1183/23120541.01516-2025](#)

Abstract

Both moderate and severe exacerbations of COPD follow patient-specific, predictable patterns rather than occurring as random events of chance <https://bit.ly/4d6TkMS>.

Copyright ©The authors 2026.

Conflict of interest statement

Conflict of interest: S.P. Bhatt reports support for the present manuscript from US National Institutes of Health (NIH) grants R01 HL151421 and UH3HL155806; outside the submitted work, they report grants received from Nuvaira, Sanofi/Regeneron, Genentech and the COPD Foundation, royalties or licenses from Springer, consultancy fees from Sanofi, Regeneron, Boehringer Ingelheim, Apreo, Genentech, Chiesi, AstraZeneca, GSK, Merck, Verona Pharma and Polarean, payment or honoraria for lectures, presentations, speakers' bureaus, manuscript writing or educational events for IntegrityCE, Medscape, Horizon CME, Illuminate Health and Integritas Communications; participation on a data safety monitoring or advisory board for the NIH, and a leadership role with the American Thoracic Society. S. Bodduluri reports support for the present manuscript from NIH grant NHLBI K01HL163249. M. Sadatsafavi, outside the submitted work, reports grants from AstraZeneca, payment or honoraria for lectures, presentations, speakers' bureaus, manuscript writing or educational events from AstraZeneca and GSK, and support for attending meetings and/or travel from AstraZeneca. The remaining authors have nothing to disclose.

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

Supplementary info

Publication types, Grants and fundingExpand

Full text links



[Proceed to details](#)

Cite

18

Respirology

-
-
-

. 2026 Sep 7.

doi: 10.1002/resp.70310. Online ahead of print.

[Towards Regional Progress in Lung Health: APSR 2025 Big 5 Lung Diseases Workshop](#)

[Peter Ab Wark](#)¹

Affiliations Expand

- PMID: 42705915
- DOI: [10.1002/resp.70310](#)

No abstract available

Keywords: COPD; asthma; lung cancer; pneumonia; tuberculosis.

Supplementary info

Publication typesExpand

Full text links



[Proceed to details](#)

Cite

19

Eur Respir J

-
-
-

. 2026 Sep 7:2601178.

doi: 10.1183/13993003.01178-2026. Online ahead of print.

European Respiratory Society clinical practice guidelines update for the treatment of pulmonary arterial hypertension

Gabor Kovacs¹, Katarina Zeder^{2 3 4}, Marc Humbert⁵, Robin Condliffe⁶, Ingrid Toews⁷, Athenais Boucly⁵, Micheala Aldred⁸, Roberto Badagliacca⁹, Wendy Chung¹⁰, Frances De Man^{11 12}, Peter Dorfmueller¹³, Pisana Ferrari^{14 15}, George Giannakoulas¹⁶, Sergio Harari¹⁷, Tom Kotsimbos¹⁸, Nicole Ngai Yung Tsang¹⁹, Rozenn Quarck^{20 21}, Antenor Rodrigues^{22 23}, Stephan Rosenkranz²⁴, Olivier Sitbon⁵, Anton Vonk Noordegraaf^{11 12}, Lan Zhao²⁵, Marius Hoeper²⁶, Marion Delcroix^{20 21}

Affiliations Expand

- PMID: 42705705
- DOI: [10.1183/13993003.01178-2026](https://doi.org/10.1183/13993003.01178-2026)

Abstract

Background: Pulmonary arterial hypertension (PAH) is a severe, progressive disease of the small pulmonary arteries. These guidelines provide updated evidence-based recommendations for the treatment of PAH focusing on the latest scientific evidence on sotatercept, an activin signalling inhibitor targeting a novel pathway for the treatment of PAH, and on the role of right heart catheterisation (RHC) in the management of PAH patients during follow-up.

Methods: A European Respiratory Society (ERS) Task Force, comprising global experts, methodologists and a patient representative, developed these clinical practice guidelines in accordance with ERS methodology and the GRADE (Grading of Recommendations, Assessment, Development and Evaluations) approach. Four PICO (Patients, Intervention, Comparator, Outcomes) questions and one narrative question have been addressed.

Recommendations: The Task Force recommends add-on treatment with sotatercept in PAH patients who already receive PAH drugs and are at intermediate-low, intermediate-high or high risk of death during follow-up; this recommendation is based on a high certainty of evidence available from randomised controlled trials (RCTs). In PAH patients at low risk of death, the Task Force does not provide a recommendation due to the low certainty of evidence and the limited number of such patients included in RCTs. To monitor safety and efficacy, patients receiving sotatercept should be treated in pulmonary hypertension centres and their management should include regular follow-up and appropriate examinations. To guide treatment strategy, the Task Force suggests performing RHC during follow-up in PAH patients who receive PAH drugs and are at intermediate-low, intermediate-high or high risk of death, when therapeutic consequences are expected. The Task Force does not provide a recommendation for this question in PAH patients at low risk of death, due to the very low certainty of evidence.

Conclusion: The ERS guidelines on the treatment of PAH provide an updated evidence-based framework for the optimal management of patients with PAH.

Copyright ©The authors 2026. For reproduction rights and permissions contact permissions@ersnet.org.

Full text links



[Proceed to details](#)

Cite

20

Semin Respir Crit Care Med

-
-
-

. 2026 Sep 7.

doi: 10.1055/a-2935-5995. Online ahead of print.

[Novel Interventional and Surgical Therapies in Chronic Obstructive Pulmonary Disease](#)

[Ashish Karir](#)^{1,2}, [Pallav L Shah](#)^{1,2}

Affiliations Expand

- PMID: 42705339
- DOI: [10.1055/a-2935-5995](https://doi.org/10.1055/a-2935-5995)

Free article

Abstract

Chronic obstructive pulmonary disease (COPD) is the third leading cause of death worldwide, with its global prevalence projected to increase substantially by 2050, making its management one of the greatest challenges in respiratory medicine. Although pharmacological and nonpharmacological therapies remain the cornerstone of care, many patients continue to experience debilitating breathlessness, recurrent exacerbations, and impaired quality of life despite optimal medical treatment. Advances in interventional technology, imaging, patient selection, and anesthetic safety have transformed the therapeutic landscape, expanding the role of bronchoscopic and surgical interventions in the management of selected patients with COPD. These therapies aim to address the structural and pathophysiological consequences of disease that cannot be adequately treated with

conventional medical therapy alone. Over the past three decades, lung volume reduction (LVR) has been extensively investigated and is now an established treatment option for appropriately selected patients with advanced emphysema. Both surgical and bronchoscopic LVR techniques have demonstrated improvements in lung function, exercise capacity, symptoms, and quality of life in carefully selected populations. Beyond LVR, a new generation of bronchoscopic therapies is emerging to target other COPD phenotypes and unmet clinical needs, including interventions designed to reduce exacerbation frequency, modify airway pathology, and improve symptom control. As the range of available treatment options continues to expand, multidisciplinary assessment and precision phenotyping are becoming increasingly important to identify the most appropriate intervention for each patient. This review provides an overview of the current evidence supporting established surgical and bronchoscopic LVR procedures and examines emerging bronchoscopic therapies for COPD. We discuss patient selection, procedural considerations, clinical outcomes, and future directions, highlighting the evolving role of interventional therapies within a personalized, multidisciplinary approach to COPD management.

The Author(s). This is an open access article published by Thieme under the terms of the Creative Commons Attribution License, permitting unrestricted use, distribution, and reproduction so long as the original work is properly cited. (<https://creativecommons.org/licenses/by/4.0/>).

Conflict of interest statement

P.L.S. reports a relationship with Ambu Inc that include consulting or advisory. P.L.S. reports a relationship with Olympus Europa SE & Co KG that includes consulting or advisory. P.L.S. reports a relationship with Pulmonx Corp that includes speaking and lecture fees. P.L.S. is an investigator on clinical trials conducted by Pulmonx, NuVaira, CSA Medical, Apreo Health Inc and Galavanize Therapeutics.

Full text links



[Proceed to details](#)

Cite

21

Respir Investig

-
-
-

. 2026 Sep 7;64(6):101509.

doi: 10.1016/j.resinv.2026.101509. Online ahead of print.

[Association of liver fibrosis with incident chronic obstructive pulmonary disease](#)

[Jialiang He¹](#)

Affiliations Expand

- PMID: 42705105
- DOI: [10.1016/j.resinv.2026.101509](https://doi.org/10.1016/j.resinv.2026.101509)

Abstract

Background: The Fibrosis-4 (FIB-4) index, a noninvasive hepatic fibrosis marker reflecting systemic inflammation and metabolic dysfunction, is associated with adverse outcomes in established chronic obstructive pulmonary disease (COPD). However, its ability to predict incident COPD in the general population remains unknown.

Methods: We conducted a prospective cohort study using UK Biobank data from 444,376 participants without prevalent COPD at baseline. The FIB-4 index was calculated from age, aspartate aminotransferase, alanine aminotransferase, and platelet count. The primary outcome is incident COPD. Cox proportional-hazards models were used to estimate hazard ratios (HRs) for incident COPD across FIB-4 categories (low, intermediate, high).

Results: During a median follow-up of 14.1 years, 18,515 incident COPD events occurred. Higher FIB-4 was associated with a graded increase in COPD risk. In the fully adjusted model, the HRs for the intermediate and high FIB-4 categories were 1.48 (95% confidence interval [CI], 1.43 to 1.53) and 1.72 (95% CI, 1.57 to 1.88), respectively, as compared with the low category. When FIB-4 was analyzed as a continuous variable via restricted cubic splines, a positive graded association with COPD risk was observed with significant non-linearity (P for non-linearity <0.001). Results were consistent in both sexes and across sensitivity analyses, including exclusion of participants with hypertension, diabetes, or liver disease and exclusion of early events. Competing-risk analysis with death as a competing event yielded similar findings.

Conclusions: In this large prospective cohort study, we found that a higher FIB-4 index was independently associated with an increased risk of incident COPD.

Keywords: Chronic obstructive pulmonary disease; Liver fibrosis; Prevention; Risk factor.

Copyright © 2026 The Japanese Respiratory Society. Published by Elsevier B.V. All rights reserved.

Conflict of interest statement

Declaration of competing interest The author has no conflicts of interest.

Full text links

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

1

Clin Dermatol

-
-
-

. 2026 Sep 11:S0738-081X(26)00229-4.

doi: 10.1016/j.clindermatol.2026.09.003. Online ahead of print.

[Where the Future Lies: GLP-1 Receptor Agonists as Therapeutics for Dermatologic Comorbidities](#)

[Mikaela DeCoster](#)¹, [Shanthi Narla](#)²

Affiliations Expand

- PMID: 42727867
- DOI: [10.1016/j.clindermatol.2026.09.003](#)

Abstract

Glucagon-like peptide-1 receptor agonists (GLP-1RAs) have transformed the management of obesity, type 2 diabetes mellitus, and cardiometabolic disease through effects on weight reduction, glycemic control, and systemic inflammation. Their varied immunometabolic actions have generated increasing interest in dermatology, where chronic inflammatory skin diseases frequently coexist with obesity, insulin resistance, metabolic syndrome, and cardiovascular disease. Emerging evidence from clinical trials, observational studies, and real-world analyses suggests that GLP-1RAs may improve outcomes in psoriasis, hidradenitis suppurativa, and atopic dermatitis while simultaneously reducing the burden of associated metabolic and cardiovascular comorbidities. In psoriasis, combination therapy with tirzepatide has demonstrated enhanced skin clearance, substantial weight loss, and reduced risk of psoriatic arthritis. In hidradenitis suppurativa and atopic dermatitis, GLP-1RAs have been associated with improvements in cardiometabolic outcomes and reductions in systemic complications. Collectively, these findings support an evolving paradigm in which the greatest therapeutic utility of GLP-1RAs in dermatology may lie not only in direct modulation of cutaneous inflammation but also in addressing the metabolic dysfunction and chronic systemic inflammation that drive disease severity and multimorbidity. We review the current clinical evidence and propose a conceptual framework positioning GLP-1RAs as immune-metabolic therapies that target the systemic comorbidities of inflammatory skin disease, highlighting future opportunities for disease modification and integrated dermatologic care.

Keywords: Glucagon-like peptide-1; atopic dermatitis; clinical trials; comorbidities; cutaneous inflammation; glucagon-like peptide-1 receptor agonist; hidradenitis suppurativa; immunometabolism; metabolic dysfunction; obesity; psoriasis.

Copyright © 2026. Published by Elsevier Inc.

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.

Full text links



[Proceed to details](#)

Cite

2

Review

Clin Rheumatol

-
-
-

. 2026 Sep 10.

doi: 10.1007/s10067-026-08403-5. Online ahead of print.

[Baseline comorbidity assessment may authorize early steroid-sparing therapy in older patients with polymyalgia rheumatica](#)

[Ciro Manzo](#)¹, [Alberto Castagna](#)²

Affiliations Expand

- PMID: 42720710
- DOI: [10.1007/s10067-026-08403-5](#)

Abstract

Glucocorticoids remain the cornerstone of polymyalgia rheumatica (PMR) management, but prolonged use carries significant toxicity risks in older adults. Despite high multi-morbidity prevalence, systematic screening using validated geriatric scales is rarely performed. We evaluated whether baseline systemic

comorbidity burden, quantified via the Cumulative Illness Rating Scale for Geriatrics (CIRS-G), is associated with persistent glucocorticoid utilization at 12 months. In this perspective report of 154 older outpatients (mean age 71.74 years) with isolated PMR, baseline comorbidity density maintained a significant exploratory association with 12-month persistent glucocorticoid requirements (adjusted OR 1.11, 95% CI 1.05-1.16; $P < 0.001$), while the isolated severity score lost significance. Partitioning the cohort into true empirical population tertiles revealed that persistent therapy requirements rose from 1.96% (scores ≤ 21) to 44.23% (scores > 25 , $P < 0.001$). A scales-based comorbidity assessment offers a practical operationalization of the 2024 EULAR/ACR Treat-to-Target recommendations, optimizing baseline risk stratification during weaning.

Keywords: Cumulative Illness Rating Scale for Geriatrics (CIRS-G); Glucocorticoid weaning; Polymyalgia rheumatica.

© 2026. The Author(s), under exclusive licence to International League of Associations for Rheumatology (ILAR).

Conflict of interest statement

Compliance with ethical standards. Ethics approval and consent to participate: The study was conducted in accordance with the Declaration of Helsinki. Given the strictly retrospective, fully anonymized, and pseudonymous nature of this routine clinical chart review, a formal institutional protocol waiver for standard ethical approval and patient informed consent was implemented. This approach is in full compliance with the competent institutional review guidelines (Azienda Sanitaria Locale Napoli 3 sud and Azienda Provinciale Catanzaro Medical Directions) and national data protection regulations governing real-world observational research and registry-derived data. Absolute identity protection and patient privacy were strictly maintained throughout the entire data aggregation process. **Disclosures:** None. **Disclaimer:** No part of this manuscript is copied, submitted, or published elsewhere. All authors take full responsibility for the integrity and accuracy of all aspects of the work. AI was not used to write this manuscript.

- [20 references](#)

Supplementary info

Publication typesExpand

Full text links



[Proceed to details](#)

Cite

3

Review

Online J Public Health Inform

-
-
-

. 2026 Sep 8:18:e88021.

doi: 10.2196/88021.

[eHealth Approaches to Multimorbidity Management: Scoping Review of Interventions and Multidisease Strategies](#)

[Katja Bochtler](#)^{1,2}, [Salima Houta](#)^{2,3}

Affiliations Expand

- PMID: 42715160
- PMCID: [PMC13559150](#)
- DOI: [10.2196/88021](#)

Abstract

Background: Multimorbidity, defined as the coexistence of two or more chronic conditions, challenges traditional, single-disease health care models. Although digital health technologies are increasingly applied to complex patient care, most interventions remain disease-specific and fail to account for interactions between coexisting conditions.

Objective: This scoping review aimed to systematically map and synthesize existing evidence on digital health interventions that explicitly address multimorbidity, focusing on how these solutions integrate disease interdependencies between coexisting diseases in their design, implementation, and evaluation. We aimed to identify underlying concepts, map frequently targeted disease clusters, and assess reported outcomes and barriers to real-world application.

Methods: Following the PRISMA-ScR (Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews) framework and informed by PRISMA-S (Preferred Reporting Items for Systematic Reviews and Meta-Analyses literature search extension) recommendations, we conducted systematic searches in PubMed and CINAHL for studies published in English or German between January 2014 and May 2024. Eligible studies described digital health interventions targeting patients with two or more conditions and explicitly addressed interactions among diseases, symptoms, or treatments. We strictly excluded studies of digital solutions that addressed multiple conditions through isolated modules or separate functionalities without cross-condition integration. In addition, research focusing solely on technical development, polypharmacy, or usability was excluded. Two reviewers independently screened records and extracted data using a structured charting form. Data were synthesized using descriptive statistics and thematic analysis.

Results: Of 1660 records identified, 11 studies representing seven distinct digital health projects met the inclusion criteria. Most interventions focused on older adults with cardiometabolic or respiratory multimorbidity and combined mobile apps, telemonitoring platforms, and decision-support or analytic modules. While most interventions demonstrated feasibility and user acceptance, only a minority operationalized disease interactions beyond aggregated data. Approaches to multimorbidity included cross-disease analytics, composite risk indicators, and guideline-based decision support; however, systematic reconciliation of competing clinical recommendations was rare. Evaluation outcomes mainly addressed usability, engagement, and feasibility, whereas evidence regarding clinical effectiveness remained limited and inconsistent. Only two studies assessed clinical outcomes, with mixed findings.

Conclusions: This review provides a novel synthesis of how digital health interventions explicitly address multimorbidity as an interconnected phenomenon rather than as a set of isolated conditions. Current evidence suggests feasibility and user acceptance of digital tools, whereas robust implementation of multimorbidity-aware functionalities and evidence regarding benefit remain limited. Advancing this field will require interoperable, data-integrative systems capable of supporting coordinated multimorbidity care across conditions and care settings. These findings highlight the need for a shift from disease-centric toward integrated multimorbidity-oriented digital care models.

Keywords: digital health; disease interactions; eHealth intervention; integrated care; multidisease approaches; multimorbidity; self-management.

© Katja Bochtler, Salima Houta. Originally published in the Online Journal of Public Health Informatics (<https://ojphi.jmir.org/>).

Conflict of interest statement

Conflicts of Interest: None declared.

- [39 references](#)
- [8 figures](#)

Supplementary info

Publication typesExpand

Full text links



[Proceed to details](#)

Cite

4

Gerontologist

•

-
-

. 2026 Sep 8:gnag216.

doi: 10.1093/geront/gnag216. Online ahead of print.

"I don't know whether I really have choices": a multiperspective and longitudinal exploration of healthcare choices of older adults with multimorbidity

Thessa W Thölking¹, Yvonne Engels¹, Yvonne Schoon², Els J van Wijngaarden¹

Affiliations Expand

- PMID: 42708630
- DOI: [10.1093/geront/gnag216](https://doi.org/10.1093/geront/gnag216)

Free article

Abstract

Background and objectives: As the prevalence of multimorbidity among older adults is rising, challenges regarding their end-of-life healthcare choices are increasingly relevant. To address knowledge gaps regarding decision-making, we explored how older adults with multimorbidity, their relatives and involved healthcare professionals experienced end-of-life healthcare choices, how their experiences related to each other and how these choices occurred in interactions between them over time.

Research design and methods: We conducted a multiperspective, longitudinal, interview and observation study with a phenomenological and ethnographic approach. We followed nine six-month patient trajectories with eleven relatives and 58 healthcare professionals and conducted 73 observations of patient-healthcare professional interactions and 63 interviews.

Results: The meaning of end-of-life healthcare choices of older people with multimorbidity was essentially understood as an ongoing, entangled, existential and relational process, shaped by, yet also transcending, healthcare contexts. This process was characterized by four tensions: (i) the experience of not having a choice, but making decisions nonetheless; (ii) the existential experience and the medical gaze; (iii) the importance of relatives and their limited role in healthcare; and (iv) navigating fragmented healthcare with interrelated conditions.

Discussion and implications: Healthcare professionals' limited insight into patients' and relatives' personal, existential perspectives and relational contexts calls for a better exploration of their lifeworld to ensure the best possible alignment of healthcare decisions with patients' and relatives' needs and values. Older adults with multimorbidity are inadequately supported by fragmented healthcare systems, and efforts to improve this should consider existential, relational and systemic factors.

Keywords: Phenomenology; decision-making; end-of-life; ethnography; relationality.

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

Full text links



[Proceed to details](#)

Cite

5

BJGP Open

-
-
-

. 2026 Sep 7:BJGPO.2025.0243.

doi: 10.3399/BJGPO.2025.0243. Online ahead of print.

[Factors affecting the likelihood of documented medication concerns in patients with multimorbidity: a cross-sectional study in primary care](#)

[Ileana Gefaell-Larrondo](#)^{1 2 3 4}, [Alba Campillejo García](#)⁵, [Almudena Castaño Reguillo](#)⁶, [Miguel Rujas](#)⁷, [Rodrigo Martín Gómez Del Moral Herranz](#)⁷, [Beatriz Merino-Barbancho](#)⁷, [Jim Carlson](#)⁸, [Ana Isabel Villimar-Rodriguez](#)⁹, [Andrés Castillo Sanz](#)¹⁰, [Giuseppe Fico](#)⁷, [Jaime Barrio Cortes](#)^{3 4 5 11}

Affiliations Expand

- PMID: 41554645
- DOI: [10.3399/BJGPO.2025.0243](#)

Free article

Abstract

Background: Patients scored as 'high-risk' and with chronic conditions in primary care (PC) often face medication-related problems. A significant but underexplored problem is the patient's medication concern, which may also impact treatment decisions and outcomes.

Aim: This study aimed to describe the characteristics of patients scored as high-risk with chronic conditions in Madrid, Spain who have documented medication concern and to analyse the associated factors.

Design & setting: Descriptive cross-sectional study, conducted within the Innovative Medicines Initiative Horizon 2020 (IMI-H2020) European BEAMER project, including all patients scored as high-risk with chronic conditions in the Madrid region.

Method: Patients were identified by the Adjusted Morbidity Groups (AMG) stratification tool in PC electronic clinical records. Variables included sociodemographic, clinical, and pharmacological, along with self-reported medication concerns. Univariate and bivariate analyses and logistic regression models were performed with medication concerns as the dependent variable.

Results: In all, 40 776 (28.56%) reported medication concern. Patients with medication concern were older (84.6 versus 72.7 years), had more chronic conditions (7 versus 6), and medications (9.7 versus 8.7). They were more likely to live alone (8.5% versus 2.7%) and showed higher dependency. The following were associated with medication concern: older age odds ratio (OR) 11.0 (95% confidence interval (CI) = 5.4 to 22.3; $P < 0.001$), polypharmacy OR 3.2 (95% CI = 3.1 to 3.3; $P < 0.001$), living alone OR 1.5 (95% CI = 1.4 to 1.6; $P < 0.001$), Parkinson's OR 1.3 (95% CI = 1.2 to 1.4; $P < 0.001$); chronic pain OR 1.6 (95% CI = 1.2 to 2.1; $P = 0.001$), and cardiovascular risk factors OR 1.2 (95% CI = 1.1 to 1.3; $P = 0.001$).

Conclusion: Age, polypharmacy, multimorbidity, and social isolation are predictors of medication concern in patients scored as high-risk with chronic conditions in PC. Addressing psychological barriers, simplifying treatment, and strengthening social support through tailored interventions could decrease medication concerns.

Keywords: Expression of concern; General practitioners; Multimorbidity; Polypharmacy; Primary healthcare.

Copyright © 2026, The Authors.

Full text links



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

1

Published Erratum

Respir Med

-
-
-

. 2026 Sep 10:109153.

doi: 10.1016/j.rmed.2026.109153. Online ahead of print.

[Corrigendum to "Adherence to inhaled treatment is associated with better disease control and quality of life in mild-to-moderate asthma" \[Respir. Med. 262, \(2026\), 109127\]](#)

[Nicola Scichilone](#)¹, [Giulia Genduso](#)², [Diego Bagnasco](#)³, [Alessandro Barone](#)⁴, [Salvatore Battaglia](#)², [Alida Benfante](#)², [Benedetta Bondi](#)³, [Matteo Bonini](#)⁵, [Luisa Brussino](#)⁶, [Giovanna Elisiana Carpagnano](#)⁷, [Cristiano Caruso](#)⁸, [Francesca Cefaloni](#)⁹, [Miriam De Francesco](#)¹⁰, [Stefano Del Giacco](#)¹¹, [Alessandro Farsi](#)¹², [Sebastian Ferri](#)¹³, [Laura Franceschini](#)¹², [Manuela Latorre](#)¹⁰, [Francesca Puggioni](#)¹⁴, [Vitaliano Nicola Quaranta](#)⁶, [Erminia Ridolo](#)⁴, [Pierachille Santus](#)¹⁵, [Fabio Selvi](#)⁹, [Paolo Serra](#)¹⁶, [Antonio Spanevello](#)¹⁷, [Alessandra Tomasello](#)², [Martina Zappa](#)¹⁸, [Francesco Blasi](#)¹⁹, [Pierluigi Paggiaro](#)²⁰, [Giorgio Walter Canonica](#)¹⁴, [Fulvio Braido](#)³

Affiliations Expand

- PMID: 42722517
- DOI: [10.1016/j.rmed.2026.109153](#)

No abstract available

Erratum for

- [Adherence to inhaled treatment is associated with better disease control and quality of life in mild-to-moderate asthma.](#)

Scichilone N, Genduso G, Bagnasco D, Barone A, Battaglia S, Benfante A, Bondi B, Bonini M, Brussino L, Carpagnano GE, Caruso C, Cefaloni F, De Francesco M, Del Giacco S, Farsi A, Ferri S, Franceschini L, Latorre M, Puggioni F, Quaranta VN, Ridolo E, Santus P, Selvi F, Serra P, Spanevello A, Tomasello A, Zappa M, Blasi F, Paggiaro P, Canonica GW, Braido F. Respir Med. 2026 Oct;262:109127. doi: 10.1016/j.rmed.2026.109127. Epub 2026 Aug 27. PMID: 42660367

Supplementary info

Publication typesExpand

Full text links



[Proceed to details](#)

Cite

2

Allergy

•

-
-

. 2026 Sep 9.

doi: 10.1111/all.70506. Online ahead of print.

Rademikibart for Asthma With Type 2 Biomarkers: Exploratory Subgroup Analyses From a Phase 2b Randomized Clinical Trial

Michael E Wechsler¹, Praveen Akuthota², Barry Quart³, Raúl Collazo³

Affiliations Expand

- PMID: 42717393
- DOI: [10.1111/all.70506](https://doi.org/10.1111/all.70506)

Abstract

Background: Rademikibart, an IL-4R α -targeting antibody, demonstrated efficacy in a Phase 2b trial of adults with moderate-to-severe uncontrolled asthma ([NCT04773678](https://clinicaltrials.gov/ct2/show/study/NCT04773678)). We report exploratory and predominantly post hoc subgroup analyses, according to baseline eosinophil count (EOS) and fractional exhaled nitric oxide (FeNO).

Methods: Patients were randomized, double-blind, to rademikibart 150 mg or 300 mg Q2W (600-mg loading) or placebo, with medium-to-high dose inhaled corticosteroids and ≥ 1 reliever/controller. Up to eight EOS/FeNO subgroups were investigated, focusing on the following five: ≥ 300 cells/ μ L and ≥ 25 ppb (N = 80); ≥ 25 ppb (N = 142); ≥ 300 cells/ μ L (N = 129); ≥ 150 cells/ μ L (N = 247); 150- < 300 cells/ μ L (N = 118).

Results: Prebronchodilator FEV₁ increased significantly at first assessment (Week 1) and was sustained throughout the 24-week treatment period. FEV₁ and asthma control (ACQ-6) improvements were greatest when baseline EOS and FeNO were both elevated. At Week 1, after a 600-mg loading dose, placebo-adjusted FEV₁ increased by 422 mL (≥ 300 cells/ μ L and ≥ 25 ppb), 339 mL (≥ 25 ppb), 324 mL (≥ 300 cells/ μ L), 227 mL (≥ 150 cells/ μ L), and 141 mL (150- < 300 cells/ μ L). At Week 24, with 300 mg Q2W, placebo-adjusted FEV₁ increased by 519 mL (≥ 300 cells/ μ L and ≥ 25 ppb), 401 mL (≥ 25 ppb), 394 mL (≥ 300 cells/ μ L), 287 mL (≥ 150 cells/ μ L), and 159 mL (150- < 300 cells/ μ L). Exacerbations decreased by $\geq 63\%$ per subgroup. Rademikibart was well tolerated. No eosinophilia (Preferred Term) was reported. Grade 1 eosinophil count increased did not lead to treatment discontinuation (n = 2).

Conclusions: Rapid and sustained improvements were more pronounced in patients with type 2-high biomarkers than previously reported in the overall study population.

Keywords: IL-4R α ; asthma; eosinophils; rademikibart; type 2 inflammation.

© 2026 The Author(s). Allergy published by European Academy of Allergy and Clinical Immunology and John Wiley & Sons Ltd.

- [42 references](#)

Supplementary info

Grants and fundingExpand

Full text links



[Proceed to details](#)

Cite

3

Chest

-
-
-

. 2026 Sep 9:S0012-3692(26)06552-9.

doi: 10.1016/j.chest.2026.06.076. Online ahead of print.

[Assessing the impact of earlier initiation of biologics on clinical remission and other outcomes in a global real-life severe asthma cohort from CHRONICLE, ISAR and OPCRD](#)

[Giorgio Walter Canonica](#)¹, [George C Christoff](#)², [Ming-Ju Tsai](#)³, [Trung N Tran](#)⁴, [John Townend](#)⁵, [Ghislaine Scelo](#)⁵, [Aaron Beastall](#)⁵, [Lakmini Bulathsinhala](#)⁵, [John Busby](#)⁵, [Andrew W Lindsley](#)⁶, [Wendy C Moore](#)⁷, [Reynold A Panettieri Jr](#)⁸, [Enrico Heffler](#)¹, [Cristina Cardini](#)⁹, [Giuseppe Guida](#)¹⁰, [Eileen Wang](#)¹¹, [Michael E Wechsler](#)¹², [Nicholas Chapman](#)¹³, [Flavia Hoyte](#)¹⁴, [Rohit K Katial](#)¹⁴, [Kanao Otsu](#)¹⁴, [Celeste M Porsbjerg](#)¹⁵, [Anne-Sofie Bjerrum](#)¹⁶, [Anna von Bülow](#)¹⁷, [Susanne Hansen](#)¹⁸, [Ole Hilberg](#)¹⁹, [Kjell Erik Julius Håkansson](#)¹⁵, [Marianne Baastrup Søndergaard](#)¹⁵, [Charlotte Suppli Ulrik](#)²⁰, [Liam G Heaney](#)²¹, [David J Jackson](#)²², [Pujan H Patel](#)²³, [Paul E Pfeffer](#)²⁴, [Dermot Ryan](#)²⁵, [Piotr Kuna](#)²⁶, [Celine Bergeron](#)²⁷, [Shawn D Aaron](#)²⁸, [Shelley Abercromby](#)²⁹, [Mohit Bhutani](#)³⁰, [Kenneth R Chapman](#)³¹, [Andréanne Côté](#)³², [Beth E Davis](#)³³, [Delbert R Dorscheid](#)³⁴, [Leiana Hoshyari](#)³⁴, [Brienne Philipenko](#)³⁵, [Mohsen Sadatsafavi](#)³⁶, [Hana Serajedini](#)³⁷, [Désirée Larenas-Linnemann](#)³⁸, [Borja G Cosio](#)³⁹, [Luis Perez-de-Llano](#)⁴⁰, [Carlos A Torres-Duque](#)⁴¹, [María José Fernández-Sánchez](#)⁴², [Elizabeth García](#)⁴³, [Fabio Bolívar-Grimaldos](#)⁴⁴, [Libardo Jiménez-Maldonado](#)⁴⁵, [Diana Jimena Cano-Rosales](#)⁴⁴, [Ivan Solarte](#)⁴⁶, [Florence Schleich](#)⁴⁷, [Renaud Louis](#)⁴⁸, [Riyad Al-Lehebi](#)⁴⁹, [Adeeb A Bulkhi](#)⁵⁰, [Yahya Habis](#)⁵¹, [Mona Al-Ahmad](#)⁵², [Bassam Mahboub](#)⁵³, [Laila Salameh](#)⁵⁴, [Paulo Márcio Pitrez](#)⁵⁵, [Takashi Iwanaga](#)⁵⁶, [Soichiro Hozawa](#)⁵⁷, [Hisako Matsumoto](#)⁵⁸, [Tatsuya Nagano](#)⁵⁹, [Tomoko Tajiri](#)⁶⁰, [João A Fonseca](#)⁶¹, [Ana Alves da Silva](#)⁶¹, [Cláudia Chaves Loureiro](#)⁶², [Hadassa Cristhina de Azevedo Soares Dos Santos](#)⁶¹, [Nikolaos G Papadopoulos](#)⁶³, [Konstantinos Kostikas](#)⁶⁴, [Mina Gaga](#)⁶⁵, [Athena Gogali](#)⁶⁴, [Maria Kallieri](#)⁶⁶, [Stelios Loukides](#)⁶⁶, [Michael Makris](#)⁶⁷, [Maria Ntakoula](#)⁶⁷, [Andriana I Papaioannou](#)⁶⁸, [Giannis](#)

[Paraskevopoulos⁶⁹](#), [Fotios Psarros⁷⁰](#), [Diahn-Warng Perng⁷¹](#), [Yi-Han Hsiao⁷²](#), [Pin-Kuei Fu⁷³](#), [Chau-Chyun Sheu³](#), [Bernt Bøgvald Aarli⁷⁴](#), [Todor A Popov⁷⁵](#), [Mariko Siyue Koh⁷⁶](#), [Mei Fong Liew⁷⁷](#), [Pee Hwee Pang⁷⁸](#), [Tze Lee Tan⁷⁹](#), [Tunn Ren Tay⁸⁰](#), [Chin Kook Rhee⁸¹](#), [Jorge Máspero⁸²](#), [Ledit R F Arduzzo⁸³](#), [María Eugenia Franchi⁸⁴](#), [Martin Sivori⁸⁵](#), [Ana María Stok⁸⁶](#), [Anahí Yañez⁸⁷](#), [Njira Lugogo⁸⁸](#), [Arjun Mohan⁸⁸](#), [Patrick D Mitchell⁸⁹](#), [Alan Altraja⁹⁰](#), [Sundeep Salvi⁹¹](#), [Richard W Costello⁹²](#), [Eve J Denton⁹³](#), [Mark Hew⁹⁴](#), [Christine Jenkins⁹⁵](#), [David Langton⁹⁶](#), [Peter G Middleton⁹⁷](#), [Matthew J Peters⁹⁸](#), [Lauri Lehtimäki⁹⁹](#), [Arnaud Bourdin¹⁰⁰](#), [Camille Taillé¹⁰¹](#), [Christian Taube¹⁰²](#), [Zsuzsanna Csoma¹⁰³](#), [Dóra Lúdvíksdóttir¹⁰⁴](#), [Job F M van Boven¹⁰⁵](#), [James Fingleton¹⁰⁶](#), [Helena Emery¹⁰⁷](#), [Graham Lough¹⁰⁸](#), [Valeria Perugini¹⁰⁷](#), [Leif Bjerner¹⁰⁹](#), [Diego J Maselli¹¹⁰](#), [Roy Alton Pleasants¹¹¹](#), [Christopher S Ambrose⁴](#), [Benjamin Emmanuel⁴](#), [Cathy Emmas¹¹²](#), [Andrew N Menzies-Gow¹¹³](#), [Amit D Parulekar⁴](#), [Victoria Carter⁵](#), [Nevaashni Eleangovan⁵](#), [Ruth B Murray⁵](#), [Chris A Price⁵](#), [John D Blakey¹¹⁴](#), [David B Price¹¹⁵](#), [ISAR GLEAM Working Group](#)

Affiliations Expand

- PMID: 42716466
- DOI: [10.1016/j.chest.2026.06.076](https://doi.org/10.1016/j.chest.2026.06.076)

Abstract

Background: Biologics are generally reserved for severe asthma (SA) after standard treatments have failed. Their recommendation is based on randomized controlled trials, designed to assess efficacy but not the optimal timing for biologic initiation.

Research question: Does the timing of biologic initiation affect SA outcomes, including remission?

Study design and methods: This was a cohort study using data from the International Severe Asthma Registry, the CHRONICLE US SA registry, and the UK Optimum Patient Care Research Database, together comprising data from 26 countries. The duration of time to biologic initiation was described using several proxies (e.g., duration of asthma, potential SA [PSA], lung function impairment, and frequent exacerbations, all pre-biologic). The associations between these proxies and clinical remission, exacerbations, asthma control, lung function, and oral corticosteroid (OCS) use were assessed.

Results: 9,241 patients were included in the association analyses. Overall, the likelihood of achieving improvement in each outcome post-biologic decreased with increasing time-to-biologic-initiation. The odds of achieving clinical remission 12-months post-biologic initiation were reduced for every 10 years patients had asthma pre-biologic (0.86 [0.84, 0.88], PSA (0.78 [0.63, 0.96]), and lung function impairment (0.24 [0.21, 0.28]) and for every 10 grams lifetime cumulative OCS dose (0.54 [0.30, 0.98]). For every 10-years patients had PSA pre-biologic, post-biologic exacerbation rates were 1.08 [1.03, 1.13] times higher, lung function improvement was 2.35% [-3.18, -1.51] less, and the odds of having well- or partly-controlled asthma was 12% lower (0.88 [0.53, 1.47]).

Interpretation: Earlier initiation of biologics in individuals with SA is associated with better clinical outcomes, suggesting the need to modify approaches to asthma management from a 'reserve' to a 'preserve' approach: i.e., not reserving biologics for those with long-standing SA, instead preserving patients' lung function and possibly increasing the likelihood of better clinical outcomes with earlier biologic initiation.

Clinical trial registration: CHRONICLE - ClinicalTrials.gov identifier: [NCT03373045](https://clinicaltrials.gov/ct2/show/study/NCT03373045).

Keywords: control; exacerbation; lung function; oral corticosteroid.

Copyright © 2026. Published by Elsevier Inc.

Supplementary info

Associated dataExpand

Full text links



[Proceed to details](#)

Cite

4

ERJ Open Res

-
-
-

. 2026 Sep 7;12(5):01824-2025.

doi: 10.1183/23120541.01824-2025. eCollection 2026 Sep.

[Effectiveness of mepolizumab on mucus plugs and clinical outcomes in severe eosinophilic asthma with and without coexisting bronchiectasis: a prospective pilot study](#)

[Raffaele Campisi](#)¹, [Santi Nolasco](#)¹, [Manuel Mancuso](#)², [Andrea Alessia Nardo](#)², [Rossella Intravaia](#)¹, [Corrado Pelaia](#)³, [Carlo Vancheri](#)^{1 2}, [Nunzio Crimi](#)², [Claudia Crimi](#)^{1 2}

Affiliations Expand

- PMID: 42707946
- PMCID: [PMC13548454](#)

- DOI: [10.1183/23120541.01824-2025](https://doi.org/10.1183/23120541.01824-2025)

Abstract

Background: Mucus plugs (MPs) are common in severe eosinophilic asthma (SEA) and are often associated with airflow limitation and poor asthma control. MP formation is driven by type 2 (T2) inflammation and may be worsened by coexisting bronchiectasis (BE), a condition characterised by irreversible bronchial dilatation and mucus retention. The effect of mepolizumab on MP burden in SEA, either with or without BE, remains unclear. The objective of the present study was to evaluate the 12-month effectiveness of mepolizumab in reducing MP and improving clinical outcomes in SEA patients with high-resolution computed tomography (HRCT)-confirmed MP, stratified by the presence of BE.

Methods: We prospectively analysed 47 SEA patients with HRCT-confirmed MPs treated with mepolizumab for 12 months. Patients were grouped into SEA+MP (n=26) and SEA+MP+BE (n=21). MPs were assessed using the Mucus Plug Score (MPS) and BE severity using the Bronchiectasis Severity Index (BSI). Clinical, functional and inflammatory parameters were evaluated pre and post treatment.

Results: Mepolizumab significantly reduced MPS in both groups (-3 in SEA+MP ($p=0.0005$); -5 in SEA+MP+BE ($p<0.0001$)), improved Asthma Control Test (ACT) scores and reduced blood eosinophils and the number of annual exacerbations. Forced expiratory volume in 1 s (FEV_1) improved significantly only in the SEA+MP+BE group. Baseline BSI score correlated positively with MPS and exacerbations, and negatively with FEV_1 and ACT score.

Conclusion: Mepolizumab reduces MP burden and improves SEA outcomes; this is also the case when including patients with coexisting BE. MPs and BE may represent treatable, T2-driven traits that could serve as a therapeutic target in precision asthma care. These findings support the use of HRCT-derived MP assessment as a complementary biomarker to guide biologic therapy in SEA.

Copyright ©The authors 2026.

Conflict of interest statement

Conflict of interest: S. Nolasco reports honoraria for lectures from GSK, Sanofi and AstraZeneca, outside the submitted work, and is an associate editor of this journal. C. Pelaia reports payment or honoraria for lectures, presentations, speakers' bureaus, manuscript writing or educational events from AstraZeneca, GSK, Sanofi and Chiesi. N. Crimi reports honoraria for lectures from GSK, Sanofi and AstraZeneca, outside the submitted work. C. Crimi reports honoraria for lectures from GSK, Sanofi, AstraZeneca, VitalAire, Fisher & Paykel, ResMed and Philips, outside the submitted work. The remaining authors have nothing to disclose.

Support statement: Funding/product for this study was provided by GSK. The sponsor was given the opportunity to review the manuscript for accuracy only; however, the authors retain full responsibility for the final content and interpretation. Funding information for this article has been deposited with the Open Funder Registry.

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

Full text links



[Proceed to details](#)

Cite

5

ERJ Open Res

-
-
-

. 2026 Sep 7;12(5):00009-2026.

doi: 10.1183/23120541.00009-2026. eCollection 2026 Sep.

[A study protocol for a randomised controlled trial of two stepwise pharmacological treatment approaches to adult asthma: inhaled corticosteroid/formoterol reliever- versus short-acting \$\beta_2\$ -agonist reliever-based therapy - Asthma on TRACK](#)

[Ross Sayers](#)¹, [Ryan Cullen](#)¹, [Karen Oldfield](#)¹, [Jonathan Barrett](#)¹, [Jon Noble](#)^{1,2}, [Allie Eathorne](#)¹, [Rob Horne](#)³, [Mark Weatherall](#)⁴, [Richard Beasley](#)^{1,2}

Affiliations Expand

- PMID: 42707905
- PMCID: [PMC13548455](#)
- DOI: [10.1183/23120541.00009-2026](#)

Abstract

Background: No randomised controlled trials (RCTs) have compared inhaled corticosteroid (ICS)/formoterol reliever-based stepwise algorithms with short-acting β -agonist (SABA) reliever-based stepwise algorithms, titrated to levels of asthma control and exacerbations. Knowledge gaps remain in understanding ICS exposure over time, transitions between treatment steps, efficacy and participant satisfaction with different algorithm approaches.

Objective: The aim of the study is to determine the exposure to ICS in adults and adolescents aged 16 to 75 years treated with a budesonide/formoterol reliever-based algorithm (Algorithm 1) compared to a salbutamol reliever-based algorithm (Algorithm 2) across the spectrum of asthma severity.

Methods: This is an investigator-initiated, 52-week, single-site, open-label, parallel-groups, 2-arm RCT of 152 adults and adolescents with mild, moderate and

moderate-severe asthma (ACTRN12624001488594). Participants will be randomly allocated in a 1:1 ratio to a budesonide/formoterol reliever-based or a salbutamol reliever-based algorithm. Global Initiative for Asthma (GINA) treatment step at enrolment according to the 2024 GINA Guidelines will be used to allocate participants to the corresponding steps of each algorithm. Treatment step transition will be in response to asthma exacerbations and level of asthma control. Those experiencing exacerbations or poorly controlled asthma will be stepped up, and those well controlled stepped down. The primary outcome is ICS exposure. Important secondary outcomes include composite systemic corticosteroid exposure, rates of asthma exacerbations, asthma control, T-helper 2 biomarkers, spirometry and participants' treatment perceptions and satisfaction.

Conclusion: This is the first RCT to compare ICS/formoterol- and SABA-based reliever stepwise algorithmic approaches in asthma, with treatment adjusted according to asthma control and exacerbations.

Copyright ©The authors 2026.

Conflict of interest statement

Conflict of interest: R. Sayers, R. Cullen, K. Oldfield, J. Barrett, J. Noble, A. Eathorne and M. Weatherall have no conflicts of interests to declare. R. Horne reports grants/research support from AstraZeneca, and honoraria/consultation fees from AbbVie, Amgen, Astellas, AstraZeneca, Biogen, Erasmus, Idec, Gilead Sciences, GlaxoSmithKline, Janssen, Merck Sharp Dohme, Novartis, Pfizer, Roche, Shire Pharmaceuticals and Teva; is founder and shareholder of a UCL business company (Spoonful of Sugar Ltd), providing consultancy on supporting patients with medicines and treatment-related behaviours to healthcare policy makers, providers and industry; and is supported by the National Institute for Health Research (NIHR), Collaboration for Leadership in Applied Health Research and Care, North Thames at Bart's Health NHS Trust and Asthma UK; the views expressed are those of the author(s) and not necessarily those of the NHS, the NIHR or the Department of Health. R. Beasley has received institutional research funding from AstraZeneca, Cure Kids (New Zealand), the Health Research Council of New Zealand, Perpetual Guardian (Barbara Basham Medical Charitable Trust) and Teva; personal fees from AstraZeneca, Avillion and Teva, outside the submitted work; writing support from AstraZeneca for manuscripts relating to the Novelty study; is Chair of the Asthma Foundation of New Zealand Adolescent and Adult Asthma Guidelines Group, and was a previous member of the Board of Directors of the Global Initiative for Chronic Obstructive Lung Disease.

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

Full text links



[Proceed to details](#)

Cite

ERJ Open Res

-
-
-

. 2026 Sep 7;12(5):01850-2025.

doi: 10.1183/23120541.01850-2025. eCollection 2026 Sep.

Computed tomography-derived pulmonary blood volume distribution may be modifiable in asthma

[Anusha A Mappanasingam](#)^{1,2}, [Yonni Friedlander](#)^{2,3}, [Ekamdeep Sandhu](#)^{1,2}, [Ashutosh Thakar](#)^{1,2}, [Nandhitha Ragunayakam](#)^{1,2}, [Nisarg Radadia](#)^{1,2}, [Melanie Kjarsgaard](#)^{1,2}, [John E McDonough](#)^{1,2}, [Carmen Venegas Garrido](#)^{1,2}, [Nathan Hambly](#)^{1,2}, [Manali Mukherjee](#)^{1,2}, [Parameswaran Nair](#)^{1,2}, [Sarah Svenningsen](#)^{1,2,3}

Affiliations Expand

- PMID: 42707557
- PMCID: [PMC13548440](#)
- DOI: [10.1183/23120541.01850-2025](#)

Abstract

Background: A smaller relative volume of the peripheral pulmonary vasculature in asthma, termed "vascular pruning", has been linked to greater disease severity, exacerbations, and airflow obstruction. It is not known whether this is reversible. Therefore, the study objective was to determine whether "loss" of computed tomography (CT) measures of peripheral pulmonary vasculature is a modifiable feature of asthma pathophysiology by assessing its response to dupilumab.

Methods: 27 adults with moderate-to-severe asthma received dupilumab (n=19) or placebo (n=8) every 2 weeks for 16 weeks. Chest CT scans acquired at baseline and follow-up were analysed to quantify pulmonary blood vessel volumes categorised by cross-sectional area ($\leq 5 \text{ mm}^2$ as BV5 and $\geq 10 \text{ mm}^2$ as BV10). These volumes were reported relative to the total blood volume (TBV) as BV5% and BV10%. Change in blood vessel volumes from baseline to follow-up were evaluated and correlated with changes in patient-reported outcomes, type-2 inflammatory biomarkers and measurements of airway structure and function.

Results: Following dupilumab treatment (but not placebo), BV5% increased by 1.0% (95% CI -0.2% to 4.5%, $p=0.02$) and BV10% decreased by 1.0% (95% CI -3.6% to 0.7%, $p=0.03$). The between-group difference in median change was 3.0% for BV5% (95% CI 0.6% to 5.5%; $p=0.008$) and -3.0% for BV10% (95% CI -5.2% to -1.0%; $p=0.007$). In dupilumab-treated participants, the increase in BV5% and decrease in BV10% was associated with improved Asthma Control Questionnaire-5, forced expiratory

volume in 1 s, fraction of exhaled nitric oxide and sputum eosinophil percentage (all $p < 0.05$).

Conclusion: A redistribution of pulmonary blood volume toward smaller vessels was observed following dupilumab, suggesting that CT-derived pulmonary vascular measurements may be modifiable in asthma.

Copyright ©The authors 2026.

Conflict of interest statement

Conflict of interest: C. Venegas Garrido reports personal fees from AstraZeneca and Sanofi, outside the submitted work. N. Hambly reports grants and personal fees from Boehringer Ingelheim, Janssen, Merck, Roche and GlaxoSmithKline, outside the submitted work. M. Mukherjee reports a grant from the Canadian Institutes of Health Research, grants from Methapharm Specialty Pharmaceuticals, personal fees from AstraZeneca and GlaxoSmithKline, consultant fees from AstraZeneca, Sanofi and Respiplus, outside the submitted work; and is an associate editor of this journal. P. Nair reports grants and personal fees from AstraZeneca, GlaxoSmithKline and Teva, grants from Sanofi, Foresee and Cyclomedica, and personal fees from Equillium and Arrowhead Pharma, outside the submitted work. S. Svenningsen reports grants and personal fees from Cyclomedica, personal fees from GlaxoSmithKline, grants from Genentech, and personal fees from Polarean Imaging, outside the submitted work. The remaining authors have no competing interests to declare.

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

Full text links



[Proceed to details](#)

Cite

7

Respir Med

-
-
-

. 2026 Sep 7:263:109149.

doi: 10.1016/j.rmed.2026.109149. Online ahead of print.

[Determinants of sustained smoking among individuals with chronic respiratory diseases and effects on all-cause mortality: a population-based study](#)

[Sandra Fernández-Fernández¹](#), [Alba Navarro Hernansanz²](#), [Cristina Ortiz³](#), [Teresa López-Cuadrado⁴](#), [Iñaki Galán⁵](#)

Affiliations Expand

- PMID: 42705490
- DOI: [10.1016/j.rmed.2026.109149](#)

Abstract

Introduction: Although smoking cessation is essential in the management of chronic respiratory diseases, smoking rates remain high in this population. This study aims to identify factors associated with continued smoking among individuals with chronic respiratory diseases and to estimate its impact on all-cause mortality.

Methods: A prospective population-based study was conducted including 65,990 individuals aged ≥ 15 years. Data came from three National and European Health Surveys in Spain (2011-2017) linked with mortality records through December 2023. Participants were grouped by a history of active asthma or chronic obstructive pulmonary disease. Tobacco use, sociodemographic characteristics, and lifestyle factors were collected. Data were analyzed using multivariate logistic and Poisson regression.

Results: The prevalence of active asthma and chronic obstructive pulmonary disease was 4.4% and 6.0%, respectively. The prevalence of current smoking was 21.3% in the asthma group and 21.8% in the chronic obstructive pulmonary disease group. Continued smoking (vs. former smoking) was more likely among women, younger individuals, those with lower educational level (asthma group), and sedentary individuals. It was less likely among overweight and obese, married individuals, and those with greater Mediterranean diet adherence. A higher all-cause mortality risk was observed among current smokers with asthma (RR = 1.70, 95% CI: 1.16; 2.51, $p = 0.007$) or chronic obstructive pulmonary disease (RR = 1.34, 95% CI: 1.07; 1.67, $p = 0.014$) than former smokers.

Conclusions: Continued smoking remains highly prevalent among individuals with chronic respiratory disease and is associated with a higher all-cause mortality risk than quitting smoking. Effective smoking cessation interventions targeting high risk groups are needed.

Copyright © 2026 Elsevier Ltd. All rights reserved.

Conflict of interest statement

Declaration of competing interest The authors declare not to have any conflicts of interest that may be considered to influence directly or indirectly the content of the manuscript.

Full text links



[Proceed to details](#)

Cite

8

Lancet

-
-
-

. 2026 Sep 7:S0140-6736(26)01769-1.

doi: 10.1016/S0140-6736(26)01769-1. Online ahead of print.

[Early-life primary prevention of childhood asthma](#)

[Vincent W V Jaddoe](#)¹, [Liesbeth Duijts](#)²

Affiliations Expand

- PMID: 42705252
- DOI: [10.1016/S0140-6736\(26\)01769-1](#)

No abstract available

Conflict of interest statement

We declare no competing interests.

Full text links



[Proceed to details](#)

Cite

9

Lancet

-
-
-

. 2026 Sep 7:S0140-6736(26)01443-1.

doi: 10.1016/S0140-6736(26)01443-1. Online ahead of print.

[Use of the bacterial lysate OM-85 for the primary prevention of wheezing lower respiratory illness in preschool children: a randomised, placebo-controlled trial](#)

[Wayne J Morgan](#)¹, [David T Mauger](#)², [Leonard B Bacharier](#)³, [Cindy S Bauer](#)⁴, [Stephanie D Davis](#)⁵, [Anne M Fitzpatrick](#)⁶, [Theresa W Guilbert](#)⁷, [Daniel J Jackson](#)⁸, [Meyer Kattan](#)⁹, [Dayna Long](#)¹⁰, [Wanda Phipatanakul](#)¹¹, [S J Teach](#)¹², [Susan J Boehmer](#)², [Aliva De](#)¹³, [Ashley L Devonshire](#)¹⁴, [Jonathan M Gaffin](#)¹⁵, [Michelle L Hernandez](#)⁵, [Ian M Paul](#)¹⁶, [William J Sheehan](#)¹⁷, [Jeffrey R Stokes](#)¹⁸, [Fernando D Martinez](#)¹⁹

Affiliations Expand

- PMID: 42705251
- DOI: [10.1016/S0140-6736\(26\)01443-1](#)

Abstract

Background: Wheezing lower respiratory tract illnesses are a major health concern in preschool children. We report the results of the ORBEX trial which evaluated the safety and efficacy of the bacterial lysate, OM-85, in the primary prevention of wheezing lower respiratory tract illness.

Methods: ORBEX is a parallel-arm, double-blind, placebo-controlled trial for the primary prevention of wheezing lower respiratory tract illness in young children at increased risk for asthma due to atopic dermatitis, parental asthma, or asthma in a blood sibling aged 4 years or older. Children aged 6-18 months were centrally randomly assigned (1:1) at 11 academic clinical sites with experience in recruiting young children in the USA to receive OM-85 3·5 mg or placebo orally for 10 days each month for 24 months and then followed for an additional 36 months to evaluate outcomes while they were off the study drug. Identical openable capsules were used for active drug and placebo, and staff, investigators, and participants were masked to treatment assignment. Participants received usual treatment for wheezing illness as per US guidelines. Randomisation was stratified by sex, age group, family history of asthma, and clinical site. The primary outcome was the time to first wheezing lower respiratory tract illness during the 36-month observation period off the study drug analysed in the intention-to-treat population, which included all randomly assigned participants. The trial is registered with [clinicaltrials.gov](#), [NCT02148796](#), and is completed.

Findings: Between Jan 3, 2017, and Nov 30, 2020, 984 children were screened for eligibility, 162 were excluded, and 822 were randomly assigned (411 to the OM-85 intervention group and 411 to the placebo group). 492 participants were male (59·9%) and 330 (40·1%) were female and the mean age of participants was 11·8 months (SD 3·8). 681 children completed the 24-month treatment period, and 596 children completed the 36-month observation period. 132 children experienced at least one wheezing lower respiratory tract illness during the observation period; 71 (21%) of 342 in the OM-85 group and 61 (18%) of 339 in the placebo group. There was no significant difference between OM-85 and placebo with respect to the time to first wheezing lower respiratory tract illness (log-rank test p value 0·35; hazard ratio 1·16 [95% CI 0·82-1·64]). The most frequent adverse events, fevers, coughs, and colds, did not differ between groups.

Interpretation: Oral administration of OM-85 in early life did not decrease the incidence of wheezing lower respiratory tract illness in this high-risk population.

Bacterial lysates are not efficacious for the primary prevention of asthma-like symptoms during the preschool years.

Funding: National Heart, Lung, and Blood Institute and OM Pharma with supplemental funding and provision of study drug and placebo from OM Pharma.

Copyright © 2026 The Author(s). Published by Elsevier Ltd. This is an Open Access article under the CC BY 4.0 license. Published by Elsevier Ltd.. All rights reserved.

Conflict of interest statement

Declaration of interests All authors, with the exception of IMP, report grants from the US National Institutes of Health (NIH) and National Heart, Lung, and Blood Institute (NHLBI), and study drug or financial support from OM Pharma, GlaxoSmithKline, and Merck & Co during the conduct of the study. WJM reports grants paid to the University of Arizona from the National Institute of Allergy and Infectious Diseases (NIAID), Advanced Research Projects Agency for Health, NIH, and NHLBI, and the Cystic Fibrosis Foundation; consulting roles, travel support, and multiple data monitoring committee chair roles with the Cystic Fibrosis Foundation, including chairing the national Cystic Fibrosis Foundation Data Safety Monitoring Board (DSMB). DTM reports grants from NIH for other asthma-related clinical trials, and DSMB payments from Parexel and the Cystic Fibrosis Foundation. LBB reports grants from NIAID; royalties from Elsevier and UpToDate; consulting fees from Sanofi, Regeneron, Genentech, GlaxoSmithKline, DBV Technologies, Teva, Medscape, Kinaset, OM Pharma, AstraZeneca, Recludix, Apogee, and Eli Lilly; honoraria from Sanofi and Regeneron for lectures; participation on a DSMB or Advisory Board for DBV Technologies, AstraZeneca, Vertex, Aravax, and Horizon; leadership roles with the American Academy of Allergy, Asthma & Immunology (uncompensated) and the American Board of Allergy and Immunology (compensated); and receipt of medical writing services from Sanofi/Regeneron. SDD reports an unpaid leadership role as Chair of the American Thoracic Society Publications Policy Committee outside the submitted work. TWG reports grants paid to her institution from GSK, Sanofi, Regeneron, AstraZeneca, and OM Pharma for paediatric asthma studies; royalties from UpToDate; consulting fees from Sanofi, Regeneron, AstraZeneca, OM Pharma, and Teva for virtual and in-person advisory boards; honoraria and travel support from PlatformQ Health and Advent for continuing medical education and educational seminars; and DSMB membership with the Best Pharmaceuticals for Children Act. DJJ reports grants from NIAID, the NIH Office of the Director, and Regeneron; consulting fees from Areteia, GlaxoSmithKline, Apogee, Regeneron, and Sanofi; and Advisory Board participation with AstraZeneca and Upstream Bio. WP reports consulting fees from Regeneron, Sanofi, Genentech, Kymera, Chiesi, and Novartis; and honoraria from Chiesi and GSK. SJT reports grants from NIH and NIAID and the Environmental Protection Agency paid to his institution; royalties from UpToDate; and an unpaid leadership role as Editor of Pediatrics Open Science with the American Academy of Pediatrics. ALD reports grants paid to her institution from Sanofi, GlaxoSmithKline, OM Pharma, Food Allergy Research and Education, DBV Technologies, the National Peanut Board, the Gerber Foundation, Abbott Laboratories, AstraZeneca, and Regeneron Pharmaceuticals for paediatric allergy and asthma studies; consulting fees from Genentech paid to her; and meeting registration fees from the American Academy of Allergy, Asthma & Immunology and travel support from Food Allergy Research and Education. JMG reports grants from

AstraZeneca and GSK paid to his institution; and DSMB payments from Teva paid to him. MLH reports grants paid to her institution from the National Center for Advancing Translational Sciences and the University of Arizona during the conduct of the study; consulting fees from ALK; and Advisory Board participation with Sanofi. JRS reports grants from NIH for two other asthma-related studies; and a board role with the American Board of Allergy and Immunology. FDM reports grants from NIAID, the National Institute of Child and Human Development, the National Institute of Environmental and Health Sciences, the NIH Office of the Director, the Cystic Fibrosis Foundation, and the American Lung Association; consulting fees from OM Pharma; a patent (Therapeutic fractions and proteins from asthma-protective farm dust). All other authors declare no competing interests outside of the submitted work.

Supplementary info

Associated dataExpand

Full text links



[Proceed to details](#)

Cite

10

Review

J Asthma

-
-
-

. 2026 Sep 8:1-9.

doi: 10.1080/02770903.2026.2730882. Online ahead of print.

[Inhaled corticosteroids with short-acting \$\beta_2\$ -agonists as rescue therapy for asthma: a systematic review and meta-analysis of randomized controlled trials](#)

[Abaan Butt](#)¹, [Sarah Qureshi](#)², [Nida Tanveer](#)³, [Nabah Hussain](#)⁴, [Riya Mary Jacob](#)¹, [Sindhuja Kannan](#)¹, [Maryam Sadig Nadeem](#)⁵, [Basel Al Khatib](#)⁴, [Navin Sampathkumar](#)⁶, [Ahmed Bera Nasuhbeyoglu](#)⁷, [Asma'a Munasar Ali Alsubari](#)⁸, [Praveen Kumar Komminni](#)⁹, [Imama Ahmad](#)¹⁰, [Fiza Gillani](#)¹¹, [Padmini Badhriraju](#)¹², [Asim Elahi](#)¹³

Affiliations Expand

- PMID: 42704292

- DOI: [10.1080/02770903.2026.2730882](https://doi.org/10.1080/02770903.2026.2730882)

Abstract

Objective: The Global Initiative for Asthma (GINA) recommends inhaled corticosteroid (ICS)-containing regimens for all patients, advising against short-acting β_2 -agonist (SABA) monotherapy. While ICS-formoterol is the preferred reliever, the role of ICS-SABA remains less clearly defined.

Data sources: We searched CENTRAL, MEDLINE, Embase, ClinicalTrials.gov, and WHO ICTRP from inception to November 2025 without language restrictions.

Study selection: Eligible studies were randomized controlled trials (RCTs) comparing as-needed ICS-SABA with SABA-only reliever therapy in patients with asthma. Random-effects models were used to pool relative risks (RR), hazard ratios (HR), mean differences (MD), and standardized mean differences (SMD).

Results: Five RCTs were included in the meta-analysis. ICS-SABA significantly reduced exacerbation rates (RR = 0.69, 95% CI: 0.52-0.91), risk of at least one exacerbation (RR = 0.69, 95% CI: 0.51-0.93), and prolonged time to first exacerbation (HR = 0.74, 95% CI: 0.62-0.89). Only the rate interaction favored milder asthma (GINA steps 1-2; one trial); the time-to-first and risk interactions were nonsignificant. Symptom-control and quality-of-life estimates favored ICS-SABA but were nonsignificant; systemic corticosteroid exposure was markedly reduced (MD = -38.51 mg, 95% CI: -65.97 to -11.04). No increase in adverse or serious adverse events was observed.

Conclusions: ICS-SABA reliever therapy provides consistent reductions in asthma exacerbations and systemic corticosteroid use without compromising safety, supporting its role as a pragmatic alternative to ICS-formoterol rescue therapy. Future research should include head-to-head comparisons with ICS-formoterol, pediatric-focused trials, and long-term real-world studies to optimize asthma care.

Keywords: Asthma; GINA; ICS-SABA reliever therapy; meta-analysis.

Supplementary info

Publication typesExpand

Full text links



[Proceed to details](#)

Cite

11

Review

Expert Rev Respir Med

-
-
-

. 2026 Sep 9:1-13.

doi: 10.1080/17476348.2026.2729505. Online ahead of print.

Clesrovimab, a monoclonal antibody for the prevention of respiratory syncytial virus disease in infants: a drug profile

Margarethe Wiedenmann¹, Ziyaad Dangor¹, Shabir A Madhi^{1 2}

Affiliations Expand

- PMID: 42690248
- DOI: [10.1080/17476348.2026.2729505](https://doi.org/10.1080/17476348.2026.2729505)

Abstract

Introduction: Respiratory syncytial virus (RSV) is a leading cause of acute lower respiratory tract infection (LRTI) in young children. In children <5 years old, it causes an estimated 33 million LRTI episodes and over 100,000 deaths annually, two-thirds of which occur in infants. The licensure of new long-acting monoclonal antibodies and a maternal RSV vaccine offer opportunities for reducing RSV related infant morbidity and mortality.

Areas covered: This drug profile reviews clesrovimab (Enflonsia, Merck & Co. Inc. Rahway, NJ U.S.A.), an extended half-life human IgG1κ monoclonal antibody, targeting the highly conserved antigenic site IV of the RSV fusion protein. We synthesize evidence from phase 1 to phase 3 clinical trials, pharmacokinetic and pharmacodynamic data, regulatory approvals and resistance profiling, drawing on peer-reviewed literature and regulatory sources available until May 2026.

Expert opinion: Clesrovimab offers a single, fixed-dose, weight-independent injection per RSV season, with demonstrated safety and efficacy against medically attended RSV disease and hospitalization in infants. Its epitope target is distinct from that of nirsevimab (site Ø) and no cross resistance between the two antibodies has been observed *in vitro*. Equitable global access to monoclonal antibodies, particularly for low- and middle-income countries, remains critical to reduce the global RSV burden.

Keywords: Clesrovimab; RSV prophylaxis; infant health; lower respiratory tract infection; monoclonal antibodies; pediatrics; respiratory syncytial virus.

Plain language summary

RSV is a very common virus that almost all children catch before they are two years old. Most children have a mild illness, but some babies – especially those younger than 6 months – can develop serious chest infections that require hospital care. Research also suggests that babies who become seriously ill with RSV may be

more likely to develop ongoing breathing problems, such as wheezing or asthma, later in childhood. Clesrovimab is a new medicine that helps protect babies against severe RSV disease. It is a laboratory-made protective antibody that is given as a single injection before or during the RSV season. Unlike a vaccine, it provides immediate protection without waiting for the baby's immune system to respond. Studies have shown that clesrovimab can greatly reduce the chance of babies needing medical care or being admitted to hospital because of RSV. This medicine works well, has been carefully studied and no major safety concerns were found. Although clesrovimab is a promising new way to protect babies, it is currently very expensive. This means that it is not yet likely to be widely available through public healthcare systems in many low- and middle-income countries. Making this medicine more affordable will be important so that more babies can benefit from its protection in the future.

Supplementary info

Publication typesExpand

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

1

Case Reports

Int Forum Allergy Rhinol

-
-
-

. 2026 Sep 10.

doi: 10.1002/alr.70249. Online ahead of print.

[Survey of Otolaryngologists on Delayed Epistaxis Following Posterior Nasal Nerve Ablation](#)

[Jacob Schwartz](#)¹, [Carter Smith](#)², [Jose Luis Mattos](#)^{1,2}

Affiliations Expand

- PMID: 42721979
- DOI: [10.1002/alr.70249](https://doi.org/10.1002/alr.70249)

No abstract available

Keywords: chronic rhinitis; epistaxis; posterior nasal nerve ablation; radiofrequency ablation.

- [6 references](#)

Supplementary info

Publication typesExpand

Full text links



[Proceed to details](#)

Cite

2

Review

Int Forum Allergy Rhinol

-
-
-

. 2026 Sep 9.

doi: 10.1002/alr.70264. Online ahead of print.

[Efficacy and Predictors of Response to Biologic Therapy and Endoscopic Sinus Surgery in Patients With Nasal Polyps: A Systematic Review](#)

[Arun Chakravorty](#)^{1,2}, [Matthew E Lin](#)¹, [Rory Lubner](#)¹, [Jess C Mace](#)³, [Jeffrey Suh](#)¹, [Jivianne Lee](#)¹, [Marilene Wang](#)¹, [Sarah Wise](#)⁴, [Naweed Chowdhury](#)⁵, [Zachary M Soler](#)⁶, [Justin Turner](#)⁷, [Timothy L Smith](#)³, [Myung Sim](#)⁸, [Daniel M Beswick](#)¹

Affiliations Expand

- PMID: 42716513
- DOI: [10.1002/alr.70264](#)

Abstract

Background: Biologics and endoscopic sinus surgery (ESS) treat refractory chronic rhinosinusitis with nasal polyposis (CRSwNP), but direct comparisons are lacking. We synthesized efficacy and subgroup data across randomized controlled trials (RCTs) of biologics and ESS.

Methods: PubMed was searched through December 2025 for RCTs and subgroup analyses of biologics or ESS for adult CRSwNP. Included were ten Phase-3 placebo-controlled biologic RCTs, two pragmatic ESS trials, and one head-to-head biologic trial. 22-Item Sino-Nasal Outcome Test (SNOT-22) and nasal polyp score (NPS) effect sizes and subgroup interactions were extracted.

Results: A total of 13 trials (n = 3775) from 21 publications were included. By indirect comparison, tezepelumab and dupilumab produced the largest improvements (tezepelumab: SNOT-22: -27.4; NPS: -2.1; dupilumab: SNOT-22: -17 to -21; NPS: -1.7 to -2.1), while mepolizumab and omalizumab showed intermediate effects (SNOT-22: -10.6 to -16.5); benralizumab improved NPS but not SNOT-22, and depemokimab showed improvement below clinically discernible differences. ESS effects varied by trial and follow-up (SNOT-22: -21.9 at 6 months in MACRO vs. -4.9 at 12 months in PolypESS). Predictors of improvement differed across therapies (blood eosinophil count, NSAID-exacerbated respiratory disease, and prior ESS for dupilumab; asthma for benralizumab; baseline severity for ESS), while tezepelumab and omalizumab showed consistent efficacy without effect modification.

Conclusions: ESS and biologics provide clinically meaningful benefit. Among biologics, dupilumab and tezepelumab demonstrated the largest effect sizes, though cross-trial differences in baseline severity, follow-up, and comparators limit indirect comparisons. Head-to-head trials and standardized subgroup analyses are needed to guide treatment selection.

Keywords: chronic rhinosinusitis; endoscopic sinus surgery; eosinophilic rhinitis and nasal polyposis; medical therapy of chronic rhinosinusitis; therapeutics.

© 2026 The Author(s). International Forum of Allergy & Rhinology published by Wiley Periodicals LLC on behalf of American Academy of Otolaryngic Allergy and American Rhinologic Society.

- [45 references](#)

Supplementary info

Publication typesExpand

Full text links



[Proceed to details](#)

Cite

3

Allergy

-
-
-

. 2026 Sep 9.

doi: 10.1111/all.70508. Online ahead of print.

As-Needed Versus Regular Medication Use in the Treatment of Allergic Rhinitis in the Pollen Season: A MASK-air Study

Bernardo Sousa-Pinto^{1 2}, Rafael José Vieira^{1 2}, Antonio Bognanni^{3 4}, Ludger Klimek^{5 6}, Ana Margarida Pereira^{1 7 8}, Rita Amaral^{1 2 9 10}, Anna Bedbrook^{11 12}, Patrizia Bonadonna¹³, Luisa Brussino^{14 15}, Mark S Dykewicz¹⁶, Mattia Giovannini^{17 18}, Bilun Gemicioglu^{19 20}, Juan Carlos Ivancevich²¹, Violeta Kvedariene^{22 23}, Manuel Marques-Cruz^{1 2}, Matteo Martini²⁴, André Moreira^{25 26 27}, Marek Niedozytko²⁸, Michal Ordak²⁹, Nikolaos G Papadopoulos³⁰, Oliver Pfaar³¹, Nhân Pham-Thi^{32 33 34 35}, Orathai Jirapongsananuruk³⁶, Frederico S Regateiro^{37 38 39 40}, Sanna K Toppila-Salmi^{41 42}, Joaquin Sastre⁴³, Luís Taborda-Barata^{40 44}, Ilqim Vardaloğlu Koyuncu⁴⁵, Arunas Valiulis⁴⁶, Maria Teresa Ventura^{47 48}, Kangsadarn Tanjararak⁴⁹, Yi-Kui Xiang^{50 51 52}, Mohamed H Shamji^{53 54}, Maria José Torres⁵⁵, Holger J Schünemann^{3 4 51}, Danilo di Bona⁵⁶, João A Fonseca^{1 2 8}, Torsten Zuberbier^{50 51}, Jean Bousquet^{11 12 50 51}

Affiliations Expand

- PMID: 42714136
- DOI: [10.1111/all.70508](https://doi.org/10.1111/all.70508)

Abstract

Background: Patients with allergic rhinitis often use as-needed medication instead of regular treatment. Using data from the MASK-air mHealth app, we compared weeks with use of as-needed versus regular medication on treatment satisfaction and symptom control.

Methods: We assessed data from the MASK-air app. We compared weeks in the pollen season in which patients reported the use of one same medication during all the days in the week ("regular treatment") versus those in which patients reported the use of the same single medication (and no other treatments) in at most 4 days per week ("as-needed treatment"). We built mixed-effects linear regression models, evaluating the differences between regular and as-needed treatments on visual analogue scales for symptom control and treatment satisfaction. We performed sensitivity analyses (i) considering a different definition of as-needed treatment (use of medication ≤ 2 days per week), and (ii) evaluating treatment days preceded by non-treatment days.

Results: We assessed 2690 weeks (18,830 days, 1042 MASK-air users). For intranasal corticosteroids (INCS) and fixed combinations of intranasal antihistamines (INAH) + INCS, there were no significant differences between as-needed versus regular treatments for treatment satisfaction. For oral antihistamines (OAH) and INCS + OAH, results tended to favour as-needed approaches. For symptom control, we observed either no significant differences between the two approaches or significant differences favouring as-needed medication use. Similar results were found in the sensitivity analyses.

Conclusion: Some patients use medication regularly and others use it on-demand. This study shows that both approaches can satisfy patients and result in good disease control.

© 2026 The Author(s). Allergy published by European Academy of Allergy and Clinical Immunology and John Wiley & Sons Ltd.

- [32 references](#)

Supplementary info

Grants and fundingExpand

Full text links



[Proceed to details](#)

Cite

4

Review

Neuroepidemiology

-
-
-

. 2026 Sep 8:1.

doi: 10.1159/ned/adwag032. Online ahead of print.

[Rhinitis, sinusitis, and risk of dementia: A systematic review and meta-analysis](#)

[Juyoung Jung](#), [Hyelan Lee](#), [Sangshin Park](#)

- PMID: 42709657
- DOI: [10.1159/ned/adwag032](#)

Free article

Abstract

Introduction: This study aimed to systematically review epidemiological evidence on the association between rhinitis or sinusitis and the risk of dementia.

Methods: This review followed PRISMA 2020 guidelines and a protocol registered in PROSPERO (CRD420251181185). A comprehensive search was conducted in

Medline, EMBASE, CINAHL, and Web of Science databases for literature published up to October 2025. The search strategy incorporated the terms of 'rhinitis' OR 'sinusitis' AND 'dementia' OR 'Alzheimer'. We included cohort, case-control, and Mendelian randomization studies that reported the risk of dementia among adults diagnosed with rhinitis or sinusitis. Three PECO questions were defined to guide data synthesis and the assessment of certainty of evidence using the GRADE approach. Hazard ratios (HRs) or odds ratios (ORs) were pooled using a random-effects model in the meta-analysis. Risk of bias was evaluated for each study design.

Results: A total of eight articles met the inclusion criteria, all of which were suitable for meta-analysis. Among the included articles, one article included both a cohort and a case-control design, resulting in a total of nine study units in the final analysis. Three cohort studies showed an association between rhinitis or sinusitis and all-cause dementia (HR 1.10, 95% CI: 1.09-1.11). However, rhinitis or sinusitis was not significantly associated with Alzheimer's disease in either cohort or case-control analyses. There was no evidence of a relationship between allergic rhinitis and Alzheimer's disease in either cohort or Mendelian randomization analyses. Certainty of evidence ranged from low to very low. Most studies were judged to have a low risk of bias.

Conclusion: Rhinitis or sinusitis was associated with a modestly increased risk of all-cause dementia in the cohort analysis, but inconsistency and imprecision across studies limit causal inference. Therefore, large-scale observational or Mendelian randomization studies that include diverse populations and encompass both chronic rhinitis and sinusitis are needed. Mechanistic studies are also needed to elucidate whether type 2 immune responses may contribute to neurodegeneration.

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

Supplementary info

Publication typesExpand

Full text links



[Proceed to details](#)

Cite

5

Monaldi Arch Chest Dis

-
-
-

. 2026 Sep 7;96(3).

doi: 10.4081/monaldi.2025.3326. Epub 2025 Apr 29.

Skin prick test wheal size: a potential predictor of respiratory allergies?

Gennaro Liccardi¹, Matteo Martini², Mauro Maniscalco³, Maria Beatrice Bilò², Claudio Candia³, Lorenzo Cecchi⁴, Carmen Montera⁵, Annaclaudia Giordano⁶, Manlio Milanese⁷, Fabio De Bartolomeis⁸, Domenico Gargano⁸, Mario Lo Schiavo⁵, Francesco Madonna⁹, Antonio Papa¹⁰, Alfonso Pedicini¹¹, Alfonso Savoia¹¹, Paola Rogliani¹²

Affiliations Expand

- PMID: 40304144
- DOI: [10.4081/monaldi.2025.3326](https://doi.org/10.4081/monaldi.2025.3326)

Free article

Abstract

Dear Editor, The skin prick test (SPT) is the most commonly used method for diagnosing IgE-mediated sensitizations in conditions like bronchial asthma, allergic rhinitis, and food allergies... ***** Promoted by the Italian Association of Hospital and Territorial Allergists and Immunologists (AAIITO - Campania region). *****.

Keywords: Allergic rhinitis; bronchial asthma; dust mite; skin prick test; wheal diameters.

- [5 references](#)

Supplementary info

MeSH terms, SubstancesExpand

chronic cough

1

Review

Lung

-
-
-

. 2026 Sep 10;204(1):66.

doi: 10.1007/s00408-026-00928-5.

A Scoping Literature Review of Digital Measures and Patient-Reported Outcomes for Refractory/Unexplained Chronic Cough: Assessment of Clinical Trials and Real-World Clinical Practice

Elizabeth P Skinner¹, Rafael Alfonso-Cristancho², Atish De³, Brian Leinwand³, Elizabeth A Duncan⁴

Affiliations Expand

- PMID: 42722752
- DOI: [10.1007/s00408-026-00928-5](https://doi.org/10.1007/s00408-026-00928-5)

Abstract

Purpose: Refractory/unexplained chronic cough (RCC/UCC) is a disease associated with substantial clinical and humanistic burden. A variety of endpoints have been used in RCC/UCC research to measure cough outcomes and impact on patients' quality of life (QoL), including clinical measures of cough using digital devices, or digital measures, and patient-reported outcomes (PROs). The aim of this review was to determine which endpoints are currently used in studies of RCC/UCC, and to explore the recent evolution of new digital measures used across research and clinical settings.

Methods: We conducted a scoping literature review (January 1, 2019-October 31, 2024), assessing studies of adults diagnosed with chronic cough (refractory/unexplained or newly diagnosed). Clinical trials and observational/real-world studies were included that evaluated objective and PRO measures of cough frequency, severity, symptoms, other cough characterization, and QoL.

Results: Overall, 70 studies (29 manuscripts, 35 clinicaltrials.gov entries, 6 posters/abstracts) were included: 36 clinical trials (Phase 2, 3, or 4), 34 observational/real-world studies. Objective cough frequency was the primary endpoint in 24/36 clinical trials. In contrast, objective cough frequency was reported in 10/34 observational/real-world studies. Observational/real-world studies had a greater variety of endpoints for cough outcomes and PROs compared with clinical trials.

Conclusions: Clinical trials and observational/real-world studies of chronic cough and RCC use a wide range of outcome measures, including objective measures of cough frequency using digital devices (digital endpoints) and subjective PROs. New approaches to digital endpoints and PROs are being developed as the study and treatment of cough evolves.

Keywords: Chronic cough; Cough endpoints; Digital measures; Review.

© 2026. The Author(s).

Conflict of interest statement

Declarations. Conflict of interest: EAD, EPS and RA-C are employees of GSK and hold financial equities in GSK. EAD also holds financial equities in AstraZeneca. AD

and BL are employees of Trinity Life Sciences, which received funding from GSK to conduct the study.

- [41 references](#)

Supplementary info

Publication types, MeSH termsExpand

Full text links



[Proceed to details](#)

Cite

2

Review

Pulm Ther

-
-
-

. 2026 Sep 8.

doi: 10.1007/s41030-026-00385-8. Online ahead of print.

[Cough in Interstitial Lung Disease: Current Knowledge and Research Gaps](#)

[Giacomo Giulianelli](#) ^{#1}, [Serena Bellani](#) ^{#2 3}, [Gioele Castelli](#) ^{2 3}, [Giordano Fiorentù](#) ^{2 3}, [Elisabetta Balestro](#) ², [Surinder S Birring](#) ⁴, [Paolo Spagnolo](#) ²

Affiliations Expand

- PMID: 42709401
- DOI: [10.1007/s41030-026-00385-8](#)

Free article

Abstract

Chronic cough is one of the most frequent and burdensome symptoms in patients with interstitial lung disease (ILD), substantially impairing quality of life and, in idiopathic pulmonary fibrosis (IPF), being associated with disease progression. Despite its clinical relevance, the mechanisms underlying cough in ILD remain incompletely understood, and effective therapeutic options are limited. This narrative review summarizes current evidence on the epidemiology,

pathophysiology, clinical assessment, and management of cough across the spectrum of ILD. Current data support the concept that ILD-related cough results from a complex interplay between cough reflex hypersensitivity, mechanical distortion of the fibrotic lung, airway and parenchymal inflammation, neural remodeling, and common comorbidities such as gastroesophageal reflux disease and obstructive sleep apnea. Disease-specific mechanisms are also discussed in connective tissue disease-associated ILD, sarcoidosis, and hypersensitivity pneumonitis. We review currently available qualitative and quantitative methods for cough assessment, including patient-reported outcome measures and objective cough monitoring technologies, highlighting their strengths and limitations in clinical practice and research. Finally, we examine established and emerging therapeutic approaches. While antifibrotic therapies have shown limited and inconsistent effects on cough, recent randomized clinical trials provide encouraging evidence for low-dose morphine and extended-release nalbuphine in IPF-associated chronic cough. Nonpharmacological interventions, particularly physiotherapy and speech and language therapy, also demonstrate meaningful benefits. Several novel therapeutic strategies targeting neural and inflammatory pathways are currently under investigation. A better understanding of the mechanisms driving cough in ILD, together with standardized assessment tools and adequately powered clinical trials, will be essential to develop effective, disease-specific treatments for this disabling symptom.

Keywords: Antitussive therapy; Chronic cough; Cough; Cough hypersensitivity; Idiopathic pulmonary fibrosis; Interstitial lung disease; Objective cough monitoring; Opioids; Patient-reported outcomes; Progressive pulmonary fibrosis.

© 2026. The Author(s).

Conflict of interest statement

Declarations. Ethical Approval: This article is based on previously conducted studies and does not contain any new studies with human participants or animals performed by any of the authors. **Conflict of Interest:** Giacomo Giulianelli, Serena Bellani, Gioele Castelli, and Giordano Fiorentù have nothing to disclose. Elisabetta Balestro reports consultancy fees from Boehringer Ingelheim and payment or honoraria for lectures, presentations, manuscript writing or educational events from Boehringer Ingelheim. Surinder S. Birring reports an investigator-initiated research grant from MSD, and consultancy fees unrelated to this work from Merck, GSK, Trevi, Axalbion, Nacion, and Nerre. Paolo Spagnolo reports grants from Chiesi, Roche, Boehringer Ingelheim, and PPM Services; consultancy fees from Chiesi Farmaceutici, Novartis, and PPM Services; payment or honoraria for lectures, presentations, manuscript writing, or educational events from Boehringer Ingelheim; and participation on a data safety monitoring board or advisory board with AstraZeneca, Boehringer Ingelheim, CSL Behring, GlycoCore Pharma, Merck, Novartis, Structure Therapeutics, and Trevi. Paolo Spagnolo and Surinder Birring are Editorial Board members of Pulmonary Therapy. Paolo Spagnolo and Surinder Birring were not involved in the selection of peer reviewers for the manuscript nor any of the subsequent editorial decisions.

- [119 references](#)

Supplementary info

Publication typesExpand

Full text links



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

1

Am J Respir Crit Care Med

-
-
-

. 2026 Sep 11:aamag464.

doi: 10.1093/ajrccm/aamag464. Online ahead of print.

[Pseudomonas Aeruginosa Abundotypes and Interactotypes Reflect Clinical Heterogeneity in Bronchiectasis](#)

[Jayanth Kumar Narayana](#)¹, [Tavleen Kaur Jaggi](#)¹, [Katerina Dimakou](#)², [Fransiskus Xaverius Ivan](#)¹, [Micheál Mac Aogáin](#)^{3 4}, [Mau Ern Poh](#)⁵, [Rebecca C Hull](#)⁶, [Chandani Hennayake](#)⁶, [Merete B Long](#)⁶, [Emma D Johnson](#)⁶, [Holly Lind](#)⁶, [Pieter C Goeminne](#)⁷, [Michal Shteinberg](#)^{8 9}, [Anthony De Soyza](#)¹⁰, [Stefano Aliberti](#)^{11 12}, [Josje Altenburg](#)¹³, [Charles S Haworth](#)¹⁴, [Oriol Sibila](#)¹⁵, [Eva Polverino](#)¹⁶, [Michael R Loebinger](#)¹⁷, [Amelia Shoemark](#)^{6 17}, [Felix C Ringshausen](#)¹⁸, [Natalie Lorent](#)^{19 20}, [Francesco Blasi](#)^{21 22}, [James D Chalmers](#)^{6 23}, [Sanjay H Chotirmall](#)^{1 24}

Affiliations Expand

- PMID: 42726103
- DOI: [10.1093/ajrccm/aamag464](#)

Abstract

Introduction: *Pseudomonas aeruginosa* (PA) associates with poor clinical outcomes, however, exhibits inter-individual clinical and treatment heterogeneity in bronchiectasis.

Methods: Sputum metagenomes from n = 600 individuals with bronchiectasis from 10 countries were assessed to derive PA subgroups based on abundance (abundotypes) and/or microbial interactions (interactotypes). Longitudinal dynamics of these subgroups were assessed in two common clinical scenarios: acute

exacerbation and PA eradication. Transition probabilities for each subgroup were estimated in these scenarios.

Results: Four PA-abundotypes with comparable exacerbation risk were identified: PA-dominant (PD), Moderate PA-dominant (MPD), Other Microbe Dominant (OMD) and High Diversity (HD). Four separate PA-interactotypes were characterized: BC1 (PA-*Neisseria* interactions); BC2 (PA-*S. aureus* & *E. coli* interactions); BC3 (PA-*Streptococcus* interactions) and BC4 (mixed interactions). Core (conserved) interactions with commensal taxa were shared across all interactotypes while ancillary (variable) interactions remain interactotype-specific. Abundotypes correlate with bronchiectasis severity, symptoms and lung function while interactotypes stratify exacerbation risk with BC3 the lowest-risk group. BC1 and BC4 exhibit 1.45- and 1.44-higher fold rates ($p = 0.037$ and $p = 0.048$ respectively) for exacerbation while BC2 demonstrates a non-significant increase in exacerbation risk (1.32-fold; $p = 0.18$). In hypothesis-generating analyses using a small longitudinal cohort, PA-abundotypes remain stable through exacerbations ($n = 6$) while PA-interactotypes shift substantially suggesting dynamic responsiveness to acute clinical states. During PA eradication ($n = 11$), abundotypes exhibit structured transition with standard therapy while interactotypes demonstrate no consistent patterns.

Conclusion: PA-abundotypes and interactotypes represent independent traits capturing different dimensions of PA ecology and potentially contributing to observed clinical and treatment heterogeneity in bronchiectasis.

Keywords: *Pseudomonas aeruginosa*; Abundance; Bronchiectasis; Metagenome; Microbial Interactions.

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

Full text links



[Proceed to details](#)

Cite

2

Tuberc Respir Dis (Seoul)

-
-
-

. 2026 Sep 10.

doi: 10.4046/trd.2026.0164. Online ahead of print.

[Rehabilitation and airway clearance technique education in nontuberculous mycobacterial pulmonary disease: protocol for the NTM-Rehab study](#)

[Hyung-Jun Kim](#) ^{#1 2}, [Jaewon Beom](#) ^{#3 4}, [Bou Choe](#) ⁵, [Myungki Ji](#) ³, [Haseul Jo](#) ⁵, [Kyu-Jin Lee](#) ⁵, [Areum Hwang](#) ^{5 6}, [Hyeontaek Hwang](#) ^{5 6}, [Byoung Soo Kwon](#) ^{5 6}, [Jong Sun Park](#) ^{5 6}, [Jae Ho Lee](#) ^{5 6}

Affiliations Expand

- PMID: 42717669
- DOI: [10.4046/trd.2026.0164](https://doi.org/10.4046/trd.2026.0164)

Free article

Abstract

Background: Nontuberculous mycobacterial pulmonary disease (NTM-PD) is a chronic, often progressive, respiratory infection with an increasing global incidence that is frequently accompanied by bronchiectasis. Although antimicrobial therapy is the cornerstone of treatment, culture conversion is often incomplete, and structural lung disease persists; therefore, pulmonary rehabilitation (PR) and airway clearance techniques (ACTs) have been advocated as adjuncts. However, prospective cohort evidence of these measures in patients with NTM-PD is lacking.

Methods: NTM-Rehab is a single-center, prospective, observational cohort study conducted at Seoul National University Bundang Hospital, Republic of Korea.

Adults (≥20 years) with NTM-PD diagnosed according to the 2020

ATS/ERS/ESCMID/IDSA criteria are enrolled in a pragmatic 8-week PR and ACT education program delivered as five biweekly sessions comprising ACT education, individually tailored aerobic and resistance exercise, and reassessment.

Assessments (spirometry, sputum microbiology, chest imaging, patient-reported outcomes, and physical performance testing) are performed at baseline, week 8, and month 6, with data collected through an electronic case report form. The co-primary outcomes are the change in forced expiratory volume in 1 s and forced vital capacity, sputum culture conversion rate, and six-minute walk distance; secondary outcomes are disease-specific and generic health-related quality of life. The analyses will characterize longitudinal changes and their determinants.

Conclusion: NTM-Rehab will provide the first prospectively collected clinical data on structured PR and ACT education in NTM-PD and inform evidence-based, non-pharmacological management of this chronic respiratory disease. This study was approved by the Institutional Review Board of Seoul National University Bundang Hospital (B-2501-949-303) and registered at ClinicalTrials.gov ([NCT06838442](https://clinicaltrials.gov/ct2/show/study/NCT06838442)).

Keywords: Airway Clearance; Bronchiectasis; Cohort Studies; Nontuberculous Mycobacteria; Pulmonary Rehabilitation; Quality of Life.

Supplementary info

Associated dataExpand

Full text links



[Proceed to details](#)

Cite

3

Curr Opin Pulm Med

-
-
-

. 2026 Sep 9.

doi: 10.1097/MCP.0000000000001309. Online ahead of print.

[Reflux in bronchiectasis: current evidence and clinical implications](#)

[Robert C Flowers](#)¹, [Shreya Chablaney](#)², [Ashwin Basavaraj](#)¹

Affiliations Expand

- PMID: 42713783
- DOI: [10.1097/MCP.0000000000001309](#)

Abstract

Purpose of review: To describe the relationship between reflux and bronchiectasis and to appraise recent literature on reflux characterization, clinical outcomes, and management strategies in patients with bronchiectasis.

Recent findings: Reflux is common in bronchiectasis and has been linked to worse respiratory symptoms and quality of life, more exacerbations and healthcare use, lower lung function, and higher mortality. These associations are seen across several cohorts, but nearly all data are observational, use variable reflux definitions, and cannot determine whether reflux contributes to bronchiectasis progression or simply identifies patients with more severe disease. Proposed pathways include microaspiration-related airway injury, reflex-mediated cough amplification, and microbial dysbiosis. No randomized bronchiectasis-specific trial has shown improved respiratory outcomes with reflux-directed therapy, and acid suppression alone is unlikely to address nonacid reflux, microaspiration, cough-reflex pathways, or airway dysbiosis.

Summary: In bronchiectasis, reflux should be separated into clinically relevant phenotypes, including typical gastroesophageal reflux disease, proximal or nonacid reflux, laryngopharyngeal symptoms, dysphagia, and aspiration. Management should be guided by the suspected reflux or aspiration pattern because acid suppression alone may not address airway-relevant reflux. Future studies should pair objective reflux and swallowing measures with bronchiectasis-specific outcomes.

Keywords: aspiration; bronchiectasis; gastroesophageal reflux disease; laryngopharyngeal reflux; microaspiration.

Copyright © 2026 Wolters Kluwer Health, LLC. All rights reserved.

- [98 references](#)

Full text links



[Proceed to details](#)

Cite

4

Eur Radiol Exp

-
-
-

. 2026 Sep 8;10(1):119.

doi: 10.1186/s41747-026-00783-2.

[Next-gen paediatric imaging: ultra-low dose chest photon-counting CT approaching chest radiograph doses](#)

[Ione Limantoro](#)¹, [Kwinten Torfs](#)², [Joke Binst](#)³, [Marijke Proesmans](#)⁴, [Luc Breysem](#)³, [Hilde Bosmans](#)², [Michael Aertsen](#)^{3,2}

Affiliations Expand

- PMID: 42709357
- PMCID: [PMC13553994](#)
- DOI: [10.1186/s41747-026-00783-2](#)

Abstract

Objective: Photon-counting detector (PCD) CT may reduce radiation dose while maintaining image quality, which is particularly promising for children due to their radiosensitivity. This feasibility study investigated whether an ultra-low dose CT (ULDCT) chest protocol on PCD CT, with a dose comparable to chest radiographs, could be developed to detect gross lung abnormalities in children.

Materials and methods: This ethics-approved retrospective study consisted of two parts: (1) development of a ULDCT chest protocol using an anthropomorphic

phantom and (2) qualitative evaluation of these scans performed in 24 consecutive patients (< 16 years) for various indications. Two paediatric radiologists assessed diagnostic quality for six chest pathologies using a 3-point Likert scale. Radiation dose metrics were extracted from a dose management system, and effective doses (ED) were calculated using age-appropriate conversion factors. Statistical analysis included mainly descriptive calculations. Doses were compared with routine chest radiography.

Results: The Lungman phantom was scanned using 5 different protocols. The optimal settings were identified as Sn100 kVp, 2 mAs and pitch 1.5, yielding an ED of 14 μ Sv. All paediatric scans were assessed as acceptable, but a preference for an increased dose protocol was given to rule out interstitial lung disease or bronchiectasis. The mean total ED from the localiser and ULDCT of the chest was 11.6 [IQR: 10.9-12.8] μ Sv compared to 8.2 [IQR: 6.2-13.6] μ Sv for standard chest radiography.

Conclusion: Our PCD ULDCT chest protocol, approaching chest radiograph doses, is promising for (follow-up of) focal abnormalities and follow-up imaging of known chest pathology in children.

Key points: Question Can the technique of photon-counting detector CT result in radiation dose reduction, while achieving adequate image quality? Findings An ultra-low dose CT chest protocol was developed with a comparable dose to a single chest radiograph. Relevance statement The ultra-low dose CT chest protocol is promising in the setting of (follow-up of known) focal chest abnormalities, long-term follow-up after congenital diaphragmatic hernia repair and follow-up of interstitial lung disease in children.

Keywords: Child; Computed tomography; Photons; Radiation dosage; Thorax.

© 2026. The Author(s).

Conflict of interest statement

Declarations. Ethics approval and consent to participate: This study was approved by our ethical committee (IRB number S-68087, University Hospital of Leuven, Leuven, Belgium, 11 August 2023). Informed consent was waived. Consent for publication: Not applicable. Competing interests: The authors have no relevant financial or non-financial interests to disclose.

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

Supplementary info

MeSH terms[Expand](#)

Full text links



[Proceed to details](#)

Cite

ERJ Open Res

-
-
-

. 2026 Sep 7;12(5):01824-2025.

doi: 10.1183/23120541.01824-2025. eCollection 2026 Sep.

Effectiveness of mepolizumab on mucus plugs and clinical outcomes in severe eosinophilic asthma with and without coexisting bronchiectasis: a prospective pilot study

Raffaele Campisi¹, Santi Nolasco¹, Manuel Mancuso², Andrea Alessia Nardo², Rossella Intravaia¹, Corrado Pelaia³, Carlo Vancheri^{1,2}, Nunzio Crimi², Claudia Crimi^{1,2}

Affiliations Expand

- PMID: 42707946
- PMCID: [PMC13548454](#)
- DOI: [10.1183/23120541.01824-2025](#)

Abstract

Background: Mucus plugs (MPs) are common in severe eosinophilic asthma (SEA) and are often associated with airflow limitation and poor asthma control. MP formation is driven by type 2 (T2) inflammation and may be worsened by coexisting bronchiectasis (BE), a condition characterised by irreversible bronchial dilatation and mucus retention. The effect of mepolizumab on MP burden in SEA, either with or without BE, remains unclear. The objective of the present study was to evaluate the 12-month effectiveness of mepolizumab in reducing MP and improving clinical outcomes in SEA patients with high-resolution computed tomography (HRCT)-confirmed MP, stratified by the presence of BE.

Methods: We prospectively analysed 47 SEA patients with HRCT-confirmed MPs treated with mepolizumab for 12 months. Patients were grouped into SEA+MP (n=26) and SEA+MP+BE (n=21). MPs were assessed using the Mucus Plug Score (MPS) and BE severity using the Bronchiectasis Severity Index (BSI). Clinical, functional and inflammatory parameters were evaluated pre and post treatment.

Results: Mepolizumab significantly reduced MPS in both groups (-3 in SEA+MP (p=0.0005); -5 in SEA+MP+BE (p<0.0001)), improved Asthma Control Test (ACT) scores and reduced blood eosinophils and the number of annual exacerbations. Forced expiratory volume in 1 s (FEV₁) improved significantly only in the

SEA+MP+BE group. Baseline BSI score correlated positively with MPS and exacerbations, and negatively with FEV₁ and ACT score.

Conclusion: Mepolizumab reduces MP burden and improves SEA outcomes; this is also the case when including patients with coexisting BE. MPs and BE may represent treatable, T2-driven traits that could serve as a therapeutic target in precision asthma care. These findings support the use of HRCT-derived MP assessment as a complementary biomarker to guide biologic therapy in SEA.

Copyright ©The authors 2026.

Conflict of interest statement

Conflict of interest: S. Nolasco reports honoraria for lectures from GSK, Sanofi and AstraZeneca, outside the submitted work, and is an associate editor of this journal. C. Pelaia reports payment or honoraria for lectures, presentations, speakers' bureaus, manuscript writing or educational events from AstraZeneca, GSK, Sanofi and Chiesi. N. Crimi reports honoraria for lectures from GSK, Sanofi and AstraZeneca, outside the submitted work. C. Crimi reports honoraria for lectures from GSK, Sanofi, AstraZeneca, VitalAire, Fisher & Paykel, ResMed and Philips, outside the submitted work. The remaining authors have nothing to disclose. **Support statement:** Funding/product for this study was provided by GSK. The sponsor was given the opportunity to review the manuscript for accuracy only; however, the authors retain full responsibility for the final content and interpretation. Funding information for this article has been deposited with the Open Funder Registry.

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

Full text links



[Proceed to details](#)

Cite

6

ERJ Open Res

-
-
-

. 2026 Sep 7;12(5):00091-2026.

doi: 10.1183/23120541.00091-2026. eCollection 2026 Sep.

[Cardiovascular risk assessment in patients with bronchiectasis: insights from the Canadian Bronchiectasis and Nontuberculous Mycobacterial Infections Registry](#)

[Da Hye Kim](#)¹, [Swathi Purighalla](#)², [Julie Jarand](#)³, [Maeve Smith](#)⁴, [Ryan Cooper](#)⁴, [Brandie L Walker](#)³, [Christina S Thornton](#)^{2 3}

Affiliations Expand

- PMID: 42707553
- PMCID: [PMC13548458](#)
- DOI: [10.1183/23120541.00091-2026](#)

Abstract

Bronchiectasis patients have a substantial cardiovascular risk burden. Despite high rates of screening, one in three are at moderate-high 10-year risk, highlighting the need to integrate cardiovascular risk assessment into care pathways. <https://bit.ly/48BUigN>.

Copyright ©The authors 2026.

Conflict of interest statement

Conflict of interest: C.S. Thornton reports grants from the Canadian Institutes for Health Research, Cystic Fibrosis Canada, the Cystic Fibrosis Foundation, Insmmed, Trudell Healthcare Solutions, the Weston Foundation, Alberta Innovates Health Solutions, the Canadian Federation for Innovation and Baxter Medical and support for attending meetings from the Cystic Fibrosis Foundation. All other authors report no conflicts of interest.

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

Supplementary info

Publication typesExpand

Full text links



[Proceed to details](#)

Cite

7

Review

Eur Respir J

-
-
-

. 2026 Sep 8;68(3):2600239.

doi: 10.1183/13993003.00239-2026. Print 2026 Sep.

[Bridging the airway microbiome and targeted therapy in bronchiectasis: multi-omics insights, endotypes and emerging therapies](#)

[Christina S Thornton](#)^{1 2 3}, [Laura Schaupp](#)^{4 5 6}, [Michael M Tunney](#)⁷, [Marcus A Mall](#)^{4 5 6 8 3}

Affiliations Expand

- PMID: 42276744
- DOI: [10.1183/13993003.00239-2026](#)

Abstract

Bronchiectasis is a heterogeneous chronic airway disease primarily driven by persistent infection, microbial dysbiosis and dysregulated host immunity. While culture-based microbiology has historically informed clinical management, advances in high-throughput sequencing and multi-omic technologies have transformed our understanding of the airway ecosystem, revealing that disease activity is shaped not only by individual pathogens, but by complex and dynamic host-microbe interactions. Despite the breadth of descriptive microbiome data, translation into clinically actionable diagnostics or therapies has been limited. Importantly, cross-sectional correlations between microbiota and inflammation do not establish cause and effect, underscoring the need to embed host-microbiome profiling within both longitudinal and interventional therapeutic trials. In this review, we critically appraise current microbial and host multi-omics research in bronchiectasis, integrating microbiome studies with host inflammatory, proteomic and immunophenotyping data. We highlight themes emerging across cohorts, including low microbial diversity, pathogen dominance, loss of commensal networks and neutrophil-driven inflammation, and discuss how these features align with biological endotypes associated with exacerbations and treatment response. Drawing on lessons from host-directed therapeutic successes, we examine translational roadblocks limiting microbiome-guided care. We further review emerging microbiome-modulating strategies such as pathogen-specific biologics, bacteriophage therapy, live biotherapeutic products, biofilm-targeting adjuncts and precision antibiotic stewardship. Finally, we propose a roadmap toward microbiome-informed precision medicine through harmonised methodologies, integration of host and microbial biomarkers into clinical trials, and embedding multi-omics pipelines within large international registries. Collectively, these advances have the potential to shift bronchiectasis research and clinical management towards rationally designed, precision medicine-driven therapeutic strategies.

Copyright ©The authors 2026. For reproduction rights and permissions contact permissions@ersnet.org.

Conflict of interest statement

Conflict of interest: C.S. Thornton reports grants from the Canadian Institutes of Health Research, Cystic Fibrosis Canada, the Cystic Fibrosis Foundation, The Weston Foundation, The Canadian Foundation for Innovation, Alberta Innovates Health Solutions, Trudell Medical and Healthcare Solutions, Insmmed Incorporated and Baxter Medical, support for attending meetings from the Cystic Fibrosis Foundation, and is an editorial board member for the European Respiratory Journal. L. Schaupp reports support for the present study from the German Research Foundation. M.M. Tunney reports support for the present study from the European Commission, grants from the European Commission and Shionogi, and consultancy fees from 30 Technology. M.A. Mall reports support for the present study from the German Research Foundation and the German Federal Ministry of Research, Technology and Space, grants from the German Research Foundation, the German Federal Ministry of Research, Technology and Space, Boehringer Ingelheim, Enterprise Therapeutics and Vertex Pharmaceuticals, consultancy fees from Boehringer Ingelheim, Enterprise Therapeutics, Kither Biotech, Pari, Splisense and Vertex Pharmaceuticals, payment or honoraria for lectures, presentations, manuscript writing or educational events from Vertex Pharmaceuticals, support for attending meetings from Boehringer Ingelheim and Vertex Pharmaceuticals, participation on a data safety monitoring board or advisory board with Boehringer Ingelheim, Enterprise Therapeutics, Kither Biotech, Pari and Vertex Pharmaceuticals, is an unpaid fellow of the European Respiratory Society, and Associate Editor for the European Respiratory Journal.

Supplementary info

Publication types, MeSH terms[Expand](#)