



EMBARC registry

We would like to give a massive thank you to all who continue to recruit new patients to the registry. It is amazing to see the continued dedication in bronchiectasis research especially as we have recently passed the 14,000th EU patient bringing us to a global total of 16,000!

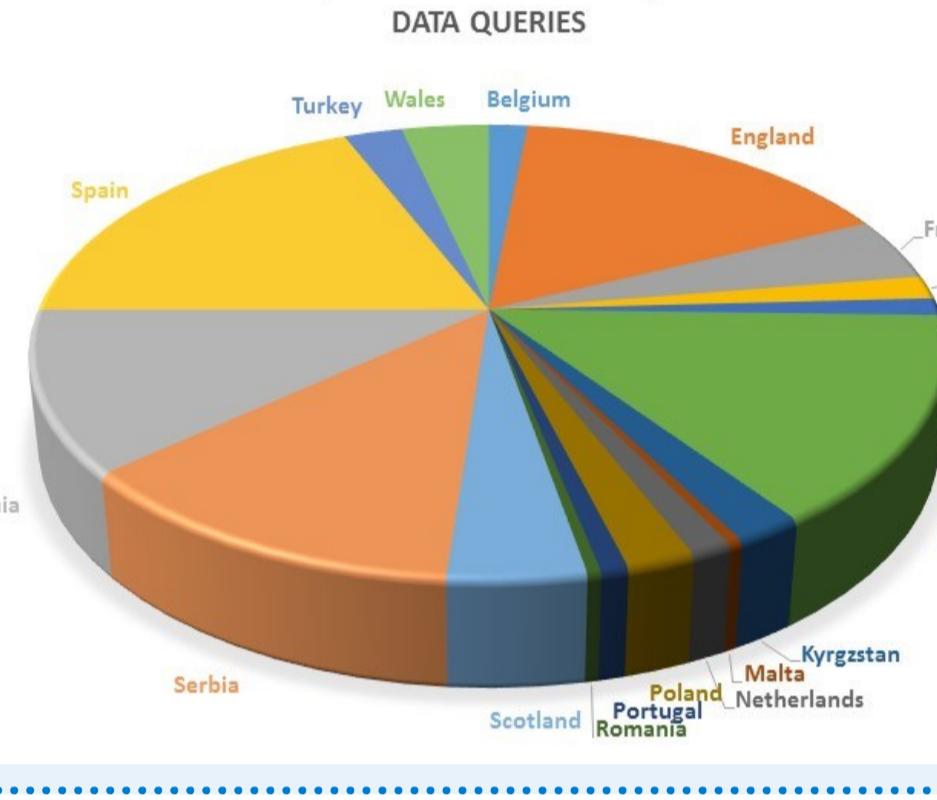
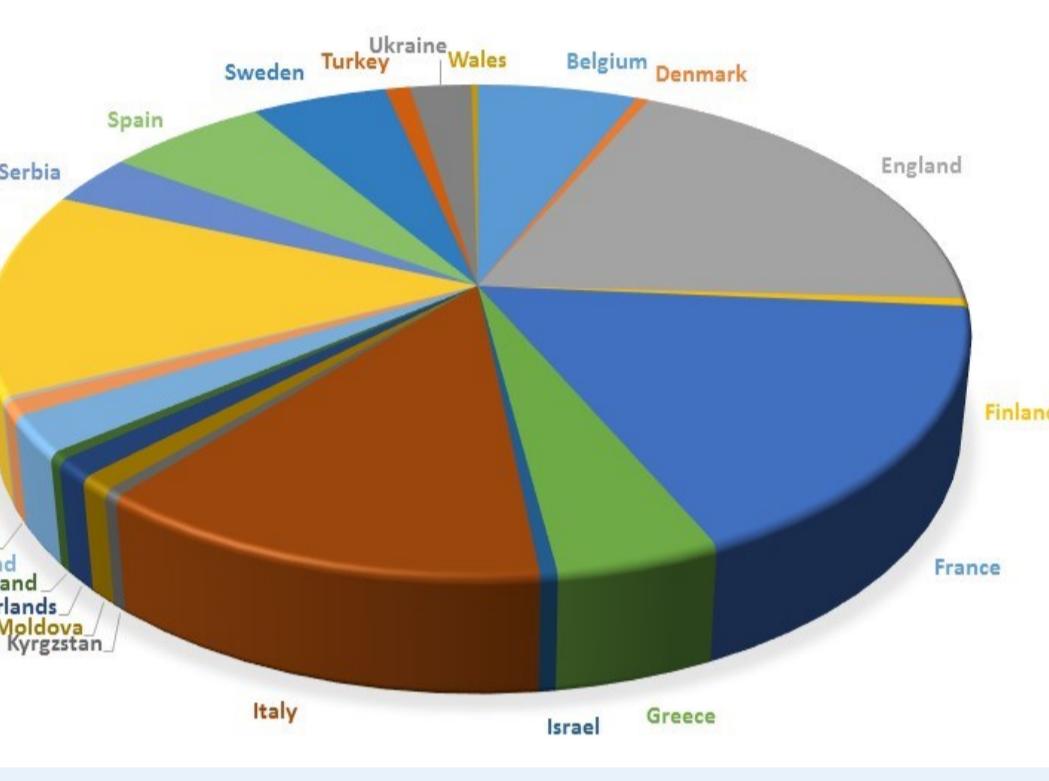
Please remember only the cases which are fully submitted to the registry contribute to data analysis as it is only then that the data can be verified. Unfortunately we are aware of data belonging to 581 patients consented between 2014 and 2018 which cannot yet contribute to analysis as they are still waiting for full submission. 40% of these cases are needing data queries resolved leaving 60% having never been submitted.

Ideally, cases should not spend more than 3months in the unsubmitted section. Please contact the study coordinator, m.l.crichton@dundee.ac.uk if assistance is required or if any cases need removed from the EMBARC eCRF system.

This case has been previously documented. Please amend.

Embarc Data

Basic case information
Co-morbidities - Disease background
Bronchiectasis background
Aetiology and laboratory
Microbiology



European Ntm & Bronchiectasis Workshop

July 6th – 8th, 2019
Vienna

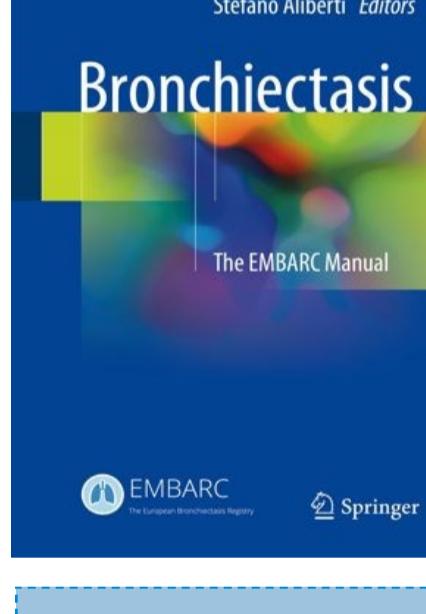
The first European NTM and Bronchiectasis workshop was held in July in Vienna. The workshop proved a great success covering many interesting topics from diagnosis and treatments to epidemiology and radiology.

For anyone who could not make the workshop or wishes to review the materials, video recordings of the sessions can be accessed via www.ntmbronchiectasis.org

The pulmonary NTM registry is now underway.
If your centre specialises in pulmonary NTM and would like to take part in this sub-study, please contact info@bronchiectasis.eu

The European Lung Foundation are also interested in hearing patient experience in being diagnosed with bronchiectasis and/or NTM. Please direct your patients to the [ELF website](#) where they can complete the survey anonymously.

The European NTM Registry



The EMBARC Manual

The EMBARC manual is still proving popular and is available for free download. Individual chapters can be downloaded or the book in its entirety. For more information or to download your own copy please visit

<https://link.springer.com/book/10.1007%2F978-3-319-61452-6#about>

— BRIDGE —

Bronchiectasis Research Involving Databases, Genomics and Endotyping to match the right treatment to the right patient.

Recruitment to BRIDGE has started. This will be the largest biobanking research completed in bronchiectasis. Results of the pilot study involving 299 patients across three sites; Dundee, Milan and Barcelona identified 3 different vectors driving airway inflammation profiles in bronchiectasis with "neutrophilic", "eosinophilic and epithelial" and "systemic inflammation" profiles used to describe these. These results and the potential clinical implications will be presented in Madrid during ERS 2019. The BRIDGE protocol will be an open research publication with progress reports being available during the 4th World Bronchiectasis Conference in 2020.



EMBARC Presents at ERS 2019

Monday 30th

Session 257 Poster discussion 10:45 - 12:45

Clinical and translational studies of bronchiectasis and non-TB mycobacterial infection

- * PA2163 Risk factors for new P. aeruginosa isolation in bronchiectasis- data from the European Bronchiectasis Registry (EMBARC) P. Burgel (France)
- * PA2170 Inflammatory molecular endotypes in bronchiectasis A. Shoemark (UK)

Session 297 Thematic poster 12:50-14:40

Phenotypes and endotypes of bronchiectasis

- * PA 2877 Phenotyping of adult patients with bronchiectasis and Yellow-Nail Syndrome (YNS)- data from the German and the European Bronchiectasis Registries (PROGNOSIS and EMBARC) I. Pink (Germany)

Session 300 Thematic poster 12:50-14:40

Clinical investigations of non-TB mycobacterial infection

- * PA2937 New isolation of non-tuberculous mycobacteria in patients with bronchiectasis - data from the European Bronchiectasis Registry (EMBARC) F. Ringshausen (Germany)

Tuesday 1st

Session 504 Oral presentation 14:45-16:45

Advances in bronchiectasis and non-TB mycobacterial infections

- 16:00 Determinants of survival in the European Bronchiectasis Registry (EMBARC) S. Aliberti (Italy)

THE LANCET Respiratory Medicine

We are extremely proud to announce the simultaneous publications of three papers in the Lancet journals.

Congratulations to the EMBARC India team who published their first report from the Indian bronchiectasis registry, the largest national dataset for bronchiectasis in the world. Remarkable differences were found between bronchiectasis patients in India compared to those in Europe and the United States. The findings were published in the Lancet Global Health.

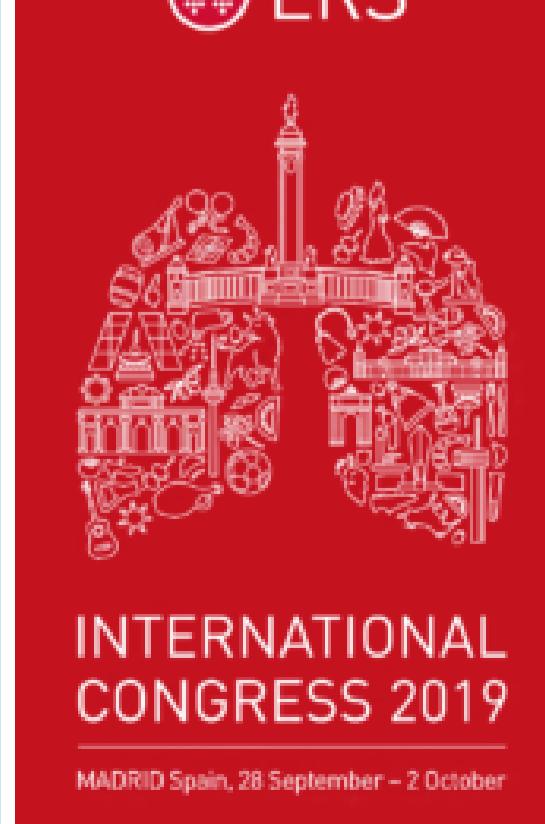
A further two papers were simultaneously published in the Lancet Respiratory Medicine. These saw Dr Jose Altenburg lead a meta-analysis on the use of macrolides in bronchiectasis patients while another meta-analysis on inhaled antibiotics was led by EMBARC fellow, Irena Laska.

In addition to these, we are happy to announce the first report from the Australian Bronchiectasis Registry has now also been published in Respiratory Medicine. Links to all of these publications can be found on the next page amongst many other publications from EMBARC contributors.



Patient Priorities

The ELF Patient Priorities website has been specifically designed for patients with the help of the European bronchiectasis patient support group. The website contains lots of patient friendly information in the form of videos, lay guidelines and documents translated into multiple languages. The most recent addition sees the completion of the new "Drugs in development" section which gives an overview of bronchiectasis research and is kept current to show ongoing trials. A patient checklist has also been designed based on the European Bronchiectasis Guidelines 2017 and made freely available on the site. This document lists what most bronchiectasis patients should expect from their care. Please encourage your patients to visit the site for accredited information www.europeanlunginfo.org/bronchiectasis



Zambon Invitation to ERS Meeting

For anyone attending ERS 2019, the Zambon team, sponsors of the PROMIS trials, are holding an Investigator update and discussion meeting. They will review and discuss key aspects for the successful delivery of the trial based on real life experience to-date including the patient profile, recruitment and retention strategies, and management/reporting of exacerbations, all from the perspective of the investigator site team. They will also provide an update on status, timelines and key changes in the programme. Speakers include Lucy Morgan, James Chalmers, Charlie Haworth and Felix Ringshausen. If you are currently taking part in the study (or interested in taking part) and attending the ERS meeting they cordially invite you and your colleagues to attend.

DATE: Monday 30th September 2019

VENUE: Melia Barajas Hotel close to ERS venue

TIMING: 5.15-7.00 PM (refreshments provided)



Publications

Call for Data Applications

If you have a research question which can be answered using the EMBARC dataset and wish to access EMBARC data please complete a data applications form and send to the research coordinator, info@bronchiectasis.eu

Data request forms can be downloaded from the EMBARC website or accessed from this link.

- ◊ **Bronchiectasis insanity: Doing the same thing over and over again and expecting different results?**
Metersky M, Chalmers J
F1000Res. 2019 Mar 15;8. pii: F1000 Faculty Rev-293. doi: 10.12688/f1000research.17295.1. eCollection 2019.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6426099/>
- ◊ **Bronchiectasis phenotypes.**
Chang-Macchii P, Traversi L, Polverino E.
Curr Opin Pulm Med. 2019 Mar 18. doi: 10.1097/MCP.0000000000000569. [Epub ahead of print]
<https://insights.ovid.com/pubmed?pmid=30893106>
- ◊ **A systematic review of pharmacotherapeutic clinical trial end-points for bronchiectasis in adults.**
Crichton ML, Aliberti S, Chalmers JD.
Eur Respir Rev. 2019 Mar 14;28(151). pii: 180108. doi: 10.1183/16000617.0108-2018. Print 2019 Mar 31. Review.
<https://erj.ersjournals.com/content/28/151/180108.long>
- ◊ **Chronic Bacterial Infection Prevalence, Risk Factors, and Characteristics: A Bronchiectasis Population-Based Prospective Study.**
Amorim A, Meira L, Redondo M, Ribeiro M, Castro R, Rodrigues M, Martins N, Hespanhol V.
J Clin Med. 2019 Mar 6;8(3). pii: E315. doi: 10.3390/jcm8030315.
<https://www.mdpi.com/2077-0383/8/3/315>
- ◊ **The economic burden of bronchiectasis – known and unknown: a systematic review**
Goeminne PC, Hernandez F, Diel R, Filonenko A, Hughes R, Juelich F, Solomon GM, Upton A, Wichmann K, Xu W, Chalmers JD.
BMC Pulm Med. 2019; 19: 54.
Published online 2019 Feb 28. doi: 10.1186/s12890-019-0818-6
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6393984/>
- ◊ **National Survey on the Management of Adult Bronchiectasis in Belgium.**
Schoovaerts K, Lorent N, Goeminne P, Aliberti S, Dupont L.
COPD. 2019 Feb 21:1-3. doi: 10.1080/15412555.2019.1566895. [Epub ahead of print]
<https://www.tandfonline.com/doi/abs/10.1080/15412555.2019.1566895?journalCode=icop20>
- ◊ **British Thoracic Society guideline for bronchiectasis in adults.**
Hill AT, Sullivan AL, Chalmers JD, De Soya A, Elborn SJ, Floto AR, Grillo L, Gruffydd-Jones K, Harvey A, Haworth CS, Hiscock E, Hurst JR, Johnson C, Kelleher PW, Bedi P, Payne K, Saleh H, Sreaton NJ, Smith M, Tunney M, Whitters D, Wilson R, Loebinger MR.
Thorax. 2019 Jan;74(Suppl 1):1-69. doi: 10.1136/thoraxjn1-2018-212463. No abstract available.
https://thorax.bmjjournals.org/content/74/Suppl_1/1.long
- ◊ **Updated BTS Adult Bronchiectasis Guideline 2018: a multidisciplinary approach to comprehensive care.**
Hill AT, Welham SA, Sullivan AL, Loebinger MR.
Thorax. 2019 Jan;74(1):1-3. doi: 10.1136/thoraxjn1-2018-212468.
<https://thorax.bmjjournals.org/content/74/1/long>
- ◊ **Economic burden of bronchiectasis in Germany.**
Diel R, Chalmers JD, Rabe KF, Nienhaus A, Lodenkemper R, Ringshausen FC.
Eur Respir J. 2019 Feb 28;53(2). pii: 1802033. doi: 10.1183/13993003.02033-2018. Print 2019 Feb.
<https://erj.ersjournals.com/content/53/2/1802033.long>
- ◊ **Feasibility of computerized adventitious respiratory sounds to assess the effects of airway clearance techniques in patients with bronchiectasis.**
Herrero-Cortina B, Oliveira A, Polverino E, Gómez-Trullén EM, Torres A, Marques A.
Physiother Theory Pract. 2019 Jan 23:1-11. doi: 10.1080/09593985.2019.1566945. [Epub ahead of print]
<https://www.ncbi.nlm.nih.gov/pubmed/30669914>
- ◊ **Inhaled liposomal ciprofloxacin in patients with non-cystic fibrosis bronchiectasis and chronic lung infection with *Pseudomonas aeruginosa* (ORBIT-3 and ORBIT-4): two phase 3, randomised controlled trials.**
Haworth CS, Bilton D, Chalmers JD, Davis AM, Froehlich J, Gonda I, Thompson B, Wanner A, O'Donnell AE.
Lancet Respir Med. 2019 Mar;7(3):213-226. doi: 10.1016/S2213-2600(18)30427-2. Epub 2019 Jan 15. Erratum in: Lancet Respir Med. 2019 Jan 25::.
<https://www.sciencedirect.com/science/article/pii/S2213260018304272?via%3Dihub>
- ◊ **Low transmission risk of *Pseudomonas aeruginosa* in a bronchiectasis clinic based on the knowledge of bacterial population biology.**
Cramer N, Sedlacek L, Tümmeler B, Welte T.
Eur Respir J. 2019 Jan 11. pii: 1802191. doi: 10.1183/13993003.02191-2018. [Epub ahead of print]
<https://erj.ersjournals.com/content/early/2019/01/02/13993003.02191-2018.long>
- ◊ **The clinical impact of *pseudomonas aeruginosa* eradication in bronchiectasis in a Dutch referral center.**
A. Pieters, M. Bakker, R. A. S. Hoek, J. Altenburg, M. van Westreenen, J. G. J. V. Aerts, M. M. van der Eerden
Eur Respir J. 2019 Jan 11. pii: 1802081. doi: 10.1183/13993003.02081-2018. [Epub ahead of print]
<https://erj.ersjournals.com/content/early/2019/01/02/13993003.02081-2018.long>
- ◊ **Pulmonary rehabilitation in bronchiectasis: a propensity-matched study.**
Patel S, Cole AD, Nolan CM, Barker RE, Jones SE, Kon S, Cairn J, Loebinger M, Wilson R, Man WD.
Eur Respir J. 2019 Jan 17;53(1). pii: 1801264. doi: 10.1183/13993003.01264-2018. Print 2019 Jan.
<https://erj.ersjournals.com/content/53/1/1801264.long>
- ◊ **New insights into immunological responses to infection in bronchiectasis.**
Shteinberg M, Shah A, Elborn JS.
Eur Respir J. 2019 Feb 7;53(2). pii: 1802395. doi: 10.1183/13993003.02395-2018. Print 2019 Feb. No abstract available.
<https://erj.ersjournals.com/content/53/2/1802395.long>
- ◊ **Bronchiectasis Guidelines-Recommendations Into Practice.**
Redondo M, Chalmers JD.
Arch Bronconeumol. 2019 Apr 10. pii: S0300-2896(18)30410-1. doi: 10.1016/j.arbres.2018.10.012. [Epub ahead of print] English, Spanish. No abstract available.
<https://www.archbronconeumol.org/en-bronchiectasis-guidelines-recommendations-into-practice-articulo-S1579212919301363>
- ◊ **Atypical Mycobacteria in Bronchiectasis. When do we Treat it?**
Perez-Miranda J, Traversi L, Polverino E.
Arch Bronconeumol. 2019 Apr;55(4):183-184. doi: 10.1016/j.arbres.2018.10.007. Epub 2018 Nov 22. English, Spanish. No abstract available.
<https://www.archbronconeumol.org/en-linkresolver-micobacterias-atípicas-las-bronquiectasias-cuando-S0300289618303648>
- ◊ **Distinct "Immunoallotypes" of Disease and High Frequencies of Sensitization in Non-Cystic Fibrosis Bronchiectasis.**
Mac Aogáin M, Tiew PY, Lim AYH, Low TB, Tan GL, Hassan T, Ong TH, Pang SL, Lee ZY, Gwee XW, Martinus C, Sio YY, Matta SA, Ong TC, Tiong YS, Wong KN, Narayanan S, Au VB, Marlier D, Keir HR, Tee A, Abisheganaden JA, Koh MS, Wang Y, Connolly JE, Chew FT, Chalmers JD, Chotirmal SH Am J Respir Crit Care Med. 2019 Apr 1;199(7):842-853. doi: 10.1164/rccm.201807-1355OC.
https://www.atsjournals.org/doi/full/10.1164/rccm.201807-1355OC?url_ver=Z39.88-2003&rfr_id=ori%3Arid%3Acrossref.org&rfr_dat=cr_pub%3Dpubmed
- ◊ **Bronchiectasis phenotypes.**
Chang-Macchii P, Traversi L, Polverino E
Curr Opin Pulm Med. 2019 May;25(3):281-288. doi: 10.1097/MCP.0000000000000569.
<https://insights.ovid.com/crossref?an=00063198-201905000-00011>
- ◊ **Bronchiectasis Guidelines-Recommendations Into Practice.**
Redondo M, Chalmers JD
Arch Bronconeumol. 2019 Jun;55(6):286-288. doi: 10.1016/j.arbres.2018.10.012. Epub 2019 Apr 10.
<https://www.archbronconeumol.org/en-bronchiectasis-guidelines-recommendations-into-practice-articulo-S1579212919301363>
- ◊ **Advances in bronchiectasis.**
Sapru K, Hill AT
Clin Med (Lond). 2019 May;19(3):230-233. doi: 10.7861/clinmedicine.19-3-230.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6542217/>
- ◊ **Pulmonary rehabilitation after exacerbation of bronchiectasis: a pilot randomized controlled trial.**
Chalmers JD, Crichton ML, Brady G, Finch S, Lonergan M, Fardon TC
BMC Pulm Med. 2019 May 6;19(1):85. doi: 10.1186/s12890-019-0856-0.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6501389/>
- ◊ **Microbiological changes observed over 48 weeks of treatment with inhaled liposomal ciprofloxacin in individuals with non-cystic fibrosis bronchiectasis and chronic *Pseudomonas aeruginosa* lung infection.**
VanDevanter DR, Gonda I, Dahms J, Cipolla D, Davis AM, Chalmers JD, Froehlich J
Clin Microbiol Infect. 2019 Apr 26. pii: S1198-743X(19)30194-6. doi: 10.1016/j.cmi.2019.04.017. [Epub ahead of print]
<https://www.sciencedirect.com/science/article/abs/pii/S1198743X19301946?via%3Dihub>
- ◊ **Airway Bacterial Load and Inhaled Antibiotic Response in Bronchiectasis.**
Sibila O, Laserna E, Shoemark A, Keir HR, Finch S, Rodrigo-Troyano A, Perea L, Lonergan M, Goeminne PC, Chalmers JD
Am J Respir Crit Care Med. 2019 Jul 1;200(1):33-41. doi: 10.1164/rccm.201809-1651OC.
https://www.atsjournals.org/doi/full/10.1164/rccm.201809-1651OC?url_ver=Z39.88-2003&rfr_id=ori%3Arid%3Acrossref.org&rfr_dat=cr_pub%3Dpubmed
- ◊ **A point-of-care neutrophil elastase activity assay identifies bronchiectasis severity, airway infection and risk of exacerbation.**
Shoemark A, Cant E, Carreto L, Smith A, Oriano M, Keir HR, Perea L, Canto E, Terranova L, Vidal S, Moffitt K, Aliberti S, Sibila O, Chalmers JD
Eur Respir J. 2019 Jun 13;53(6). pii: 1900303. doi: 10.1183/13993003.00303-2019. Print 2019 Jun.
<https://erj.ersjournals.com/content/53/6/1900303.long>
- ◊ **Mucoid *Pseudomonas aeruginosa* alters sputum viscoelasticity in patients with non-cystic fibrosis bronchiectasis.**
Alcaraz-Serrano V, Fernández-Barat L, Scioscia G, Llorens-Llacuna J, Gimeno-Santos E, Herrero-Cortina B, Vázquez N, Puig de la Bellacasa J, Gabarrús A, Amaro-Rodríguez R, Menéndez R, Torres A
Respir Med. 2019 Jul 1-Aug;154:40-46. doi: 10.1016/j.rmed.2019.06.012. Epub 2019 Jun 11.
<https://www.sciencedirect.com/science/article/pii/S0954611119302008?via%3Dihub>
- ◊ **Pregnancy Zone Protein is Associated with Airway Infection, Neutrophil Extracellular Trap Formation and Disease Severity in Bronchiectasis.**
Finch S, Shoemark A, Dicker AJ, Keir HR, Smith A, Ong S, Tan B, Choi JY, Fardon TC, Cassidy D, Huang JTJ, Chalmers JD
Am J Respir Crit Care Med. 2019 Jul 2. doi: 10.1164/rccm.201812-2351OC. [Epub ahead of print]
<https://www.atsjournals.org/doi/full/10.1164/rccm.201812-2351OC>
- ◊ **Antimicrobial peptides, disease severity and exacerbations in bronchiectasis.**
Sibila O, Perea L, Canto E, Shoemark A, Cassidy D, Smith AH, Suarez-Cuartin G, Rodrigo-Troyano A, Keir HR, Oriano M, Ong S, Vidal S, Aliberti S, Chalmers JD
Thorax. 2019 Sep;74(9):835-842. doi: 10.1136/thoraxjn1-2018-212895. Epub 2019 Jul 5.
<https://thorax.bmjjournals.org/content/74/9/835.long>
- ◊ **Treatment to prevent exacerbations in bronchiectasis: macrolides as first line?**
Laska IF, Chalmers JD
Eur Respir J. 2019 Jul 18;54(1). pii: 1901213. doi: 10.1183/13993003.01213-2019. Print 2019 Jul.
<https://erj.ersjournals.com/content/54/1/1901213.long>
- ◊ **Australian adults with bronchiectasis: The first report from the Australian Bronchiectasis Registry.**
Visser SK, Bye PTP, Fox GJ, Burr LD, Chang AB, Holmes-Liew CL, King P, Middleton PG, Maguire GP, Smith D, Thomson RM, Stroil-Salamina E, Britton WJ, Morgan LC
Respir Med. 2019 Aug 15;155:97-103. doi: 10.1016/j.rmed.2019.07.016. Epub 2019 Jul 16.
<https://www.sciencedirect.com/science/article/pii/S0954611119302409?via%3Dihub>
- ◊ **Composition of airway bacterial community correlates with chest HRCT in adults with bronchiectasis.**
O'Neill K, Einarsson GG, Rowan S, McIlreavey L, Lee AJ, Lawson J, Lynch T, Horsley A, Bradley JM, Elborn JS¹, Tunney MM
Respiratory. 2019 Jul 30. doi: 10.1111/resp.13653. [Epub ahead of print]
<https://onlinelibrary.wiley.com/doi/full/10.1111/resp.13653>
- ◊ **Soluble P-selectin in Acute Exacerbations and Stable Bronchiectasis in Adults.**
Raúl Méndez, Antonio Moscardó, Ana Latorre, Laura Feced, Paula González-Jiménez, Alba Piró, Victoria Alcaraz-Serrano, Giulia Scioscia, Rosane Amaro, Antoni Torres, Rosario Menéndez Ann Am Thorac Soc. 2019 Aug 8. doi: 10.1513/AnnalsATS.201902-140RL. [Epub ahead of print]
<https://www.atsjournals.org/doi/abs/10.1513/AnnalsATS.201902-140RL>
- ◊ **Bronchiectasis in India: results from the European Multicentre Bronchiectasis Audit and Research Collaboration (EMBARC) and Respiratory Research Network of India Registry.**
Dhar R, Singh S, Talwar D, Mohan M, Tripathi SK, Swarnakar R, Trivedi S, Rajagopal S, D'Souza G, Padmanabhan A, Baburao A, Mahesh PA, Ghewade B, Nair G, Jindal A, Jayadevappa GDH, Sawhney H, Sarmah KR, Saha K, Ananthraj S, Khanna A, Gami S, Shah A, Shah D, Dutt N, Garg H, Vyas S, Venugopal K, Prasad R, Aleemuddin NM, Karmakar S, Singh V, Jindal SK, Sharma S, Prajapati D, Chandrashekara S, McDonnell MJ, Mishra A, Rutherford R, Ramanathan RP, Goeminne PC, Vasudeva P, Dimakou K, Crichton ML, Jayaraj BS, Kungwani R, Das A, Sawhney M, Polverino E, Torres A, Gulecha NS, Shtenberg M, De Soya A, Mangala A, Shah P, Chauhan NK, Jajodia N, Singhal A, Batra S, Hasan A, Limaye S, Salvi S, Aliberti S, Chalmers JD
Lancet Glob Health. 2019 Sep;7(9):e1269-e1279. doi: 10.1016/S2214-109X(19)30327-4.
<https://www.sciencedirect.com/science/article/pii/S2214109X19303274?via%3Dihub>
- ◊ **The efficacy and safety of inhaled antibiotics for the treatment of bronchiectasis in adults: a systematic review and meta-analysis.**
Laska IF, Crichton ML, Shoemark A, Chalmers JD
Lancet Respir Med. 2019 Aug 9. pii: S2213-2600(19)30185-7. doi: 10.1016/S2213-2600(19)30185-7. [Epub ahead of print]
[https://www.sciencedirect.com/science/article/pii/S22](https://www.sciencedirect.com/science/article/pii/S2213260019301857?via%3Dihub)