ERS literature update  
September-October 2021

Composed for group 1.02 by Anouk W. Vaes, PhD and Sarah Houben-Wilke, PhD of the Department of Research and Development in Ciro, Horn, The Netherlands

PULMONARY REHABILITATION

Analysis of retinal blood vessel diameters in patients with COPD undergoing a pulmonary rehabilitation program.
Vaes AW, Spruit MA, Goswami N, Theunis J, Franssen FME, De Boever P. 

Effects of Pulmonary Rehabilitation on Diaphragm Thickness and Contractility in Patients with Chronic Obstructive Pulmonary Disease.
Güneş S, Genç A, Kurtaiş Y, Çiftci F, Hayme S, Kaya A. 

Factors influencing participation in educational workshops as part of a pulmonary rehabilitation program in patients with chronic obstructive pulmonary disease: a retrospective study.

Pulmonary Rehabilitation in Management of Chronic Obstructive Pulmonary Disease.
Alharbi MG, Kalra HS, Suri M, Soni N, Opaqueke N, Yadav S, Shah S, Iqbal Z, Hamid P. 

The use of near-infrared spectroscopy for the evaluation of a 4-week rehabilitation program in patients with COPD.
Szucs B, Petrekanits M, Fekete M, Varga JT. 

Combined effect of pulmonary rehabilitation and music therapy in patients with chronic obstructive pulmonary disease.

Pulmonary rehabilitation in a postcoronavirus disease 2019 world: feasibility, challenges, and solutions.
Wen J, Milne S, Sin DD.

Does branched-chain amino acid supplementation improve pulmonary rehabilitation effect in COPD?
de Bisschop C, Caron F, Ingrand P, Bretonneau Q, Dupuy O, Meurice JC.

Barriers to enrollment in pulmonary rehabilitation: medical knowledge analysis.
Gushken F, Degani-Costa LH, Colognese TCP, Rodrigues MT, Zanetti M, Bonamigo-Filho JL, Matos LDNJ.

Pulmonary rehabilitation in idiopathic pulmonary fibrosis and COPD: a propensity matched real-world study.
Nolan CM, Polgar O, Schofield SJ, Patel S, Barker RE, Walsh JA, Ingram KA, George PM, Molyneaux PL, Maher TM, Man WD.

Usefulness of Pulmonary Rehabilitation in Non-small Cell Lung Cancer Patients Based on Pulmonary Function Tests and Muscle Analysis Using Computed Tomography Images.
Choi J, Yang Z, Lee J, Lee JH, Kim HK, Yong HS, Lee SY.

EXERCISE TESTING AND TRAINING

Clinician-Led Balance Training in Pulmonary Rehabilitation.
O’Hoski S, Harrison SL, Butler S, Goldstein R, Brooks D.

Responsiveness and Minimal Clinically Important Difference of the Brief-BESTest in People with COPD after Pulmonary Rehabilitation.
A prospective study on physical performance of Chinese chronic obstructive pulmonary disease males with type 2 diabetes.

Predictors of improvement in resting heart rate after exercise training in patients with chronic obstructive pulmonary disease.

Impact of chronic obstructive pulmonary disease on passive viscoelastic components of the musculoarticular system.

Identifying a Heart Rate Recovery Criterion After a 6-Minute Walk Test in COPD.

Respiratory physiotherapy interventions focused on exercise training and enhancing physical activity levels in people with chronic obstructive pulmonary disease are likely to be cost-effective: a systematic review.

Respiratory Muscle Weakness and its Association with Exercise Capacity in Patients with Chronic Obstructive Pulmonary Disease.

Effects of specific inspiratory muscle training combined with whole-body endurance training program on balance in COPD patients: Randomized controlled trial.
Tounsi B, Acheche A, Lelard T, Tabka Z, Trabelsi Y, Ahmaidi S.

Functionally relevant threshold of inspiratory muscle strength in patients with chronic obstructive pulmonary disease.
Iwakura M, Wakasa M, Okura K, Kawagoshi A, Sugawara K, Takahashi H, Shioya T.

A new protocol for exercise testing in COPD; improved prediction algorithm for W(MAX) and validation of the endurance test in a placebo-controlled double bronchodilator study.

Whole-body & muscle responses to aerobic exercise training and withdrawal in ageing & COPD.
Latimer LE, Constantin-Teodosiu D, Popat B, Constantin D, Houchen-Wolloff L, Bolton CE, Steiner MC, Greenhaff PL.

Impact of resistance training on the 6-minute walk test in individuals with chronic obstructive pulmonary disease: a systematic review and meta-analysis.
Ferté JB, Boyer FC, Taiar R, Pineau C, Barbe C, Rapin A.

Use of Singing for Lung Health as an alternative training modality within pulmonary rehabilitation for COPD: an RCT.
Can static hyperinflation predict exercise capacity in COPD?
Ladeira I, Oliveira P, Gomes J, Lima R, Guimarães M.

Effect of sitting and lying Liuzijue exercise for pulmonary rehabilitation in acute exacerbation of chronic obstructive pulmonary disease patients with non-invasive ventilation: a randomized controlled trial.

Qualitative Components of Dyspnea during Incremental Exercise across the COPD Continuum.
Philips DB, Neder JA, Elbehairy AF, Milne KM, James MD, Vincent SG, Day AG, de-Torres JP, Webb KA, O'Donnell DE.

Effect of nocturnal oxygen therapy on exercise performance of COPD patients at 2048 m: data from a randomized clinical trial.

Nasal High-Flow during Exercise in Patients with COPD: A Systematic Review and Meta-Analysis.

Automatic oxygen titration versus constant oxygen flow rates during walking in COPD: a randomised controlled, double-blind, crossover trial.

Effect of interval compared to continuous exercise training on physiological responses in patients with chronic respiratory diseases: A systematic review and meta-analysis.


PHYSICAL ACTIVITY


An Exploration of the Application of Step Counter-Based Physical Activity Promotion Programs in Patients With Chronic Obstructive Pulmonary Disease: A Systematic Review.
<table>
<thead>
<tr>
<th>Title</th>
<th>Journal/Date</th>
<th>DOI</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;We are so close; yet too far&quot;: perceived barriers to smartphone-based telerehabilitation among healthcare providers and patients with Chronic Obstructive Pulmonary Disease in India.</td>
<td></td>
<td></td>
<td>Bairapareddy KC, Alaparthi GK, Jitendra RS, Prathiksha, Rao PP, Shetty V, Chandrasekaran B.</td>
</tr>
</tbody>
</table>
A randomised trial of a web-based physical activity self-management intervention in COPD.
Robinson SA, Cooper JA Jr, Goldstein RL, Polak M, Cruz Rivera PN, Gagnon DR, Samuelson A, Moore S, Kadri R, Richardson CR, Moy ML.

Determinants of the Use of Health and Fitness Mobile Apps by Patients With Asthma: Secondary Analysis of Observational Studies.

Effectiveness of Telemonitoring for Reducing Exacerbation Occurrence in COPD Patients With Past Exacerbation History: A Systematic Review and Meta-Analysis.

Perceptions of patients with chronic obstructive pulmonary disease towards telemedicine: A qualitative systematic review.

Chronic patient remote monitoring through the application of big data and internet of things.
Morales-Botello ML, Gachet D, de Buenaga M, Aparicio F, Busto MJ, Ascanio JR.
Revealing the Nature of Chronic Obstructive Pulmonary Disease Using Self-tracking and Analysis of Contact Patterns: Longitudinal Study.
Phanareth K, Dam AL, Hansen MABC, Lindskrog S, Vingtoft S, Kayser L.

Examining the Trends in Online Health Information-Seeking Behavior About Chronic Obstructive Pulmonary Disease in Singapore: Analysis of Data From Google Trends and the Global Burden of Disease Study.
Fang Y, Shepherd TA, Smith HE.

Development of a smartphone application for Korean patients with chronic obstructive pulmonary disease: Self-monitoring based action plans.
Choi JY, George M, Yun SY.

Assessing the usability of wearable devices to measure gait and physical activity in chronic conditions: a systematic review.
Keogh A, Argent R, Anderson A, Caulfield B, Johnston W.

Remote Assessment of Lung Disease and Impact on Physical and Mental Health (RALPMH): Protocol for a Prospective Observational Study.
Ranjan Y, Althobiani M, Jacob J, Orini M, Dobson RJ, Porter J, Hurst J, Folarin AA.

PATIENT REPORTED OUTCOME MEASURES

Screening Tools for Depression and Anxiety in Patients with Chronic Obstructive Pulmonary Disease - A Systematic Review.
Larsen CH, Bendstrup E, Neergaard MA.

Brief Spanish Zung Self-Rating Anxiety Scale: Dimensionality, Internal Consistency, Nomological Validity, and Differential Item Functioning Among Chronic Obstructive Pulmonary Disease Patients in Colombia.
Campo-Arias A, Blanco-Ortega JD, Pedrozo-Pupo JC.
The fatigue and quality of life in patients with chronic pulmonary diseases.
Szymanska-Chabowska A, Juzwisyn J, Tański W, Świątkowski F, Kobecki J, Chabowski M.

Impact of Lung Function and Exacerbations on Health-Related Quality of Life in COPD Patients Within One Year: Real-World Analysis Based on Claims Data.
Stöber A, Lutter JI, Schwarzkopf L, Kirsch F, Schramm A, Vogelmeier CF, Leidl R.

Use of the Evaluating Respiratory Symptoms™ in COPD as an Outcome Measure in Clinical Trials: A Rapid Systematic Review.

Adaptation and validation of the Chinese version of Dyspnoea-12 scale in individuals with chronic obstructive pulmonary disease.
Choi TCM, Chan LLY, Tsang HC, Vong YP, Cheng YK, To YL, Choo KL, Yorke J.

Modified Medical Research Council and COPD Assessment Test Cutoff Points.

Psychometric properties of the Arabic version of the anxiety inventory for respiratory disease in patients with COPD.
Albarrati A, Alzahrani M, Alnahdi AH, Taher M, Alqahtani MM, Nazer RI.

The Upper Extremity Functional Index: Reliability and Validity in Patients with Chronic Obstructive Pulmonary Disease.
Alnahdi AH, Albarrati A.

INTERSTITIAL LUNG DISEASE

Survival after inpatient or outpatient pulmonary rehabilitation in patients with fibrotic interstitial lung disease: a multicentre retrospective cohort study.


Montani D, Gamez AS, Chevereau M, Dufaure-Garé I, Amselem S, Clement A; OrphaLung and RespiFil Networks.

**A New Tool to Assess Quality of Life in Patients with Idiopathic Pulmonary Fibrosis or Non-specific Interstitial Pneumonia.**
Kirsten D, de Vries U, Costabel U, Koschel D, Bonella F, Günther A, Behr J, Claussen M, Schwarz S, Prasse A, Kreuter M.

**The opportunities and challenges of social media in interstitial lung disease: a viewpoint.**
Grewal JS, Kawano-Dourado L, Ryerson CJ.

**Global and regional burden of interstitial lung disease and pulmonary sarcoidosis from 1990 to 2019: results from the Global Burden of Disease study 2019.**

**The prognostic value of the COPD Assessment Test in fibrotic interstitial lung disease.**

**Differences between Acute Exacerbations of Idiopathic Pulmonary Fibrosis and Other Interstitial Lung Diseases.**

**Idiopathic pulmonary fibrosis: Physician and patient perspectives on the pathway to care from symptom recognition to diagnosis and disease burden.**
Lancaster L, Bonella F, Inoue Y, Cottin V, Siddall J, Small M, Langley J.

**Tele-Rehabilitation Program in Idiopathic Pulmonary Fibrosis-A Single-Center Randomized Trial.**
Cerdán-de-Las-Heras J, Balbino F, Løkke A, Catalán-Matamoros D, Hilberg O, Bendstrup E.
Pulmonary rehabilitation for interstitial lung disease: Referral and patient experiences.
Hoffman M, Mellerick C, Symons K, Glaspole I, Holland AE.

Fibrotic interstitial lung disease - palliative care needs: a World-Cafe qualitative study.
2021 Oct 11;bmjspcare-2021-003249. doi: 10.1136/bmjspcare-2021-003249. Online ahead of print.

Acute effect of oxygen therapy on exercise tolerance and dyspnea perception in ILD patients.

Implementation of guideline recommendations and outcomes in patients with idiopathic pulmonary fibrosis: Data from the IPF-PRO registry.
de Andrade JA, Kulkarni T, Neely ML, Hellkamp AS, Case AH, Guntupalli K, Bender S, Conoscenti CS, Snyder LD; IPF-PRO Registry investigators.

Health Related Quality of Life in Interstitial Lung Disease: Can We Use the Same Concepts Around the World?
Aronson KI, Suzuki A.

An updated approach to determine minimal clinically important differences in idiopathic pulmonary fibrosis.
Kang M, Veeraraghavan S, Martin GS, Kempker JA.

Mild/Moderate Asthma Network in Italy (MANI): a long-term observational study.

Does vitamin D deficiency in asthma affect clinical and functional parameters? A Turkish multicenter study.


Asthma and Comorbid Conditions - Pulmonary Comorbidity.

Predictors of asthma-related quality of life in a large cohort of asthmatics: A cross-sectional study in a secondary care center.

Insights into how Malaysian adults with limited health literacy self-manage and live with asthma: A Photovoice qualitative study.

Occupational Competence and Activities of Daily Living Performance in Bronchial Asthma : Compétence professionnelle et activités de la vie quotidienne Performance dans l'asthme bronchique.

The Clinical Respiratory Score: Investigating the Reliability of an Asthma Scoring Tool across a Multidisciplinary Team.

Asthma and posttraumatic stress disorder (PTSD): Emerging links, potential models and mechanisms.


Impact of asthma severity as risk factor to future exacerbations in patients admitted for asthma exacerbation.


Epidemiology of comorbidities and their association with asthma control.

Implementation of the MASK-Air App for Rhinitis and Asthma in Older Adults: MASK@Puglia Pilot Study.

Evaluation of the Acceptability of a Proposed, Instagram-Based, Randomized Controlled Trial for People With Asthma: Survey Study.
The impact of using a mobile application to improve asthma patients' adherence to medication in Jordan.

Measuring respiratory symptoms in moderate/severe asthma: evaluation of a respiratory symptom tool, the E-RS: COPD in asthma populations.

Analysis of the application and efficacy of "Trinity" rehabilitation nursing in management of bronchial asthma.

Comparative efficacy of strategies to support self-management in patients with asthma: a systematic review and network meta-analysis.

Anxiety and BMI affect asthma control: data from a prospective Spanish cohort.

Socioeconomic disparities in asthma healthcare utilization, exacerbations and mortality: A systematic review and meta-analysis.

Long-term predictors of severe exacerbations and mortality in a cohort of well-characterised adults with asthma.
Effects of High Intensity Interval Training and Sprint Interval Training in Patients with Asthma: A Systematic Review.

NUTRITION AND NUTRITIONAL STATUS


ADVANCED DISEASE / END OF LIFE / PALLIATIVE CARE


Palliative care integration for patients with advanced chronic obstructive pulmonary disease (COPD): Identifying essential components using participatory action research.
COMORBID CONDITIONS

Prevalence and Newly Diagnosed Rates of Multimorbidity in Older Medicare Beneficiaries with COPD.


Association between lung function and future risks of diabetes, asthma, myocardial infarction, hypertension and all-cause mortality.

Relationship between disease severity and atrial fibrillation in chronic obstructive pulmonary disease.

Association of Chronic Obstructive Pulmonary Disease With Arrhythmia Risks: A Systematic Review and Meta-Analysis.

Prevalence of depression and anxiety in patients with chronic obstructive pulmonary disease and their association with psychosocial outcomes: A cross-sectional study from Pakistan.
COPD Exacerbation History and Impact on Future Exacerbations - 8-Year Retrospective Observational Database Cohort Study from Germany.
Vogelmeier CF, Diesing J, Kossack N, Pignot M, Friedrich FW.

Beta-Blockers in High-Risk Outpatients with Chronic Obstructive Pulmonary Disease are Associated with All-Cause Mortality - The STATUETTE Cohort Study.
Damkjær M, Suppli Ulrik C, Godtfredsen N, Håkansson KEJ.

The Impact of Air Pollutants and Meteorological Factors on Chronic Obstructive Pulmonary Disease Exacerbations: A Nationwide Study.
Huh JY, Hong J, Han DW, Park YJ, Jung J, Lee SW.

Periodontal status and chronic obstructive pulmonary disease (COPD) exacerbations: a systematic review.
Kelly N, Winning L, Irwin C, Lundy FT, Linden D, McGarvey L, Linden GJ, El Karim IA.

Characterization Associated with the Frequent Severe Exacerbator Phenotype in COPD Patients.
Wu YK, Su WL, Yang MC, Chen SY, Wu CW, Lan CC.

Noninvasive ventilation at home reduces mortality in COPD with CRF.
Frazier W, van Eijndhoven E, Murphy R, Jena AB.


Renaming COPD exacerbations: the UK respiratory nursing perspective.
Mwasuku C, King J, Russell REK, Bafadhel M.

An Updated Definition and Severity Classification of COPD Exacerbations: The Rome Proposal.

Risk assessment and rate of readmission within 30 days of discharge after hospitalization for acute exacerbation of chronic obstructive pulmonary disease.
Yılmaz C, Özkan S, Erer OF.

A Feasibility and Efficacy Randomized Controlled Trial of Two Exercise Programs in Severe AECOPD Patients with Resting Hypoxemia.

Effect of a Pulmonary Embolism Diagnostic Strategy on Clinical Outcomes in Patients Hospitalized for COPD Exacerbation: A Randomized Clinical Trial.

Long-term home non-invasive ventilation in chronic hypercapnic chronic obstructive pulmonary disease patients: Real-world impact on lung function, acute exacerbations and survival.
Freitas C, Serino M, Araújo D, Pinto T, Van Zeller M, Gonçalves M, Drummond M.
Mortality prediction in chronic obstructive pulmonary disease and obstructive sleep apnea.

Prevention of Acute Exacerbation of Chronic Obstructive Pulmonary Disease after Bronchoscopic Lung Volume Reduction with Endobronchial Valves.

Association of cardiovascular health with mortality among COPD patients: National Health and Nutrition Examination Survey III.

Quadriceps weakness associated with mortality in individuals with chronic obstructive pulmonary disease.

Effects of Obstructive Sleep Apnea and Obesity on Thirty-Day Readmissions in Patients with Chronic Obstructive Pulmonary Disease: A Cross-Sectional Mediation Analysis.

Prediction of readmission in patients with acute exacerbation of chronic obstructive pulmonary disease within one year after treatment and discharge.

Exertional multidimensional dyspnoea predicts exacerbation in stable outpatients with COPD.
Kanezaki M, Terada K, Tanabe N, Shima H, Hamakawa Y, Sato S.
A multicenter study to identify the respiratory pathogens associated with exacerbation of chronic obstructive pulmonary disease in Korea.

Exertional Desaturation Has Higher Mortality Than Non-Desaturation in COPD.
Liu SF, Chin CH, Tseng CW, Chen YC, Kuo HC.

Predictors of 30- and 90-Day COPD Exacerbation Readmission: A Prospective Cohort Study.
Alqahtani JS, Aldabayan YS, Aldhahir AM, Al Rajeh AM, Mandal S, Hurst JR.

Hypoxemia severity and survival in ILD and COPD on long-term oxygen therapy - The population-based DISCOVERY study.
Palm A, Ekström M.

*Composed in collaboration with Dr. Vitalii Poberezhets (Chair of Group 01.04 - m-Health/e-health)

The association of asthma with COVID-19 mortality: an updated meta-analysis based on adjusted effect estimates.
Hou H, Xu J, Li Y, Wang Y, Yang H.

Impact of COVID-19 on (Non-COVID) chronic respiratory disease outcome survey in India (CCROS study).
Gupta N, Dhar R, Swarnakar R, Bedi R, Chawla R.
Pulmonary rehabilitation in long COVID: more than just natural recovery!?

Examining the geographic distribution of six chronic disease risk factors for severe COVID-19: Veteran-nonveteran differences.

Patterns of multimorbidity and risk of severe SARS-CoV-2 infection: an observational study in the U.K.

Perspectives of Interstitial Lung Disease Patients and Carers During COVID-19.
Cassidy N, Sheahan D, Fox L, Brown L, Galvin L, Cassidy E, Sheridan M, O'Dowd G, O'Reilly KMA.

The role of exercise in rehabilitation of discharged COVID-19 patients.
Bo W, Xi Y, Tian Z.


Future pulmonary rehabilitation perspectives following coronavirus disease 2019 in China.
Zhao HM, Yu PM, Wang C.

COVID vaccination and asthma exacerbation: might there be a link?
Kaye AD, Cornett EM, Brondeel KC, Lerner ZI, Knight HE, Erwin A, Charipova K, Gress KL, Urits I, Urman RD, Fox CJ, Kevil CG.

Barrett R, Barrett R.

Home-monitoring reduces hospital stay of COVID-19 patients.
Grutters LA, Majoor KI, Pol-Mattern ESK, Hardeman JA, van Swol CFP, Vorselaars ADM.


Pre-existing interstitial lung disease in patients with coronavirus disease 2019: A meta-analysis.
Ouyang L, Gong J, Yu M.

Asthma Patients Benefit More Than Chronic Obstructive Pulmonary Disease Patients in the Coronavirus Disease 2019 Pandemic.
Xiong R, Zhao Z, Lu H, Ma Y, Zeng H, Chen Y.
Impact of Asthma on Severity and Outcomes in COVID-19.
Aggarwal AN, Agarwal R, Dhoria S, Prasad KT, Sehgal IS, Muthu V.

Impact of smoking, COPD and comorbidities on the mortality of COVID-19 patients.

Decrease in Exacerbations During the Coronavirus Disease 2019 Pandemic in a Cohort of Veterans with COPD.
Trujillo C, Garnet B, Zadeh AV, Urdaneta G, Campos M.

Outcomes of Patients with COPD Hospitalized for Coronavirus Disease 2019.
Puebla Neira DA, Watts A, Seashore J, Duarte A, Nishi SP, Polychronopoulou E, Kuo YF, Baillargeon J, Sharma G.

Development and Validation of a Clinical Risk Score to Predict Hospitalization Within 30 Days of Coronavirus Disease 2019 Diagnosis.

Symptoms and Health Outcomes Among Survivors of COVID-19 Infection 1 Year After Discharge From Hospitals in Wuhan, China.

Depression and anxiety among individuals with medical conditions during the COVID-19 pandemic: Findings from a nationwide survey in Bangladesh.
Tasnim R, Sujan MSH, Islam MS, Ferdous MZ, Hasan MM, Koly KN, Potenza MN.
Severe COVID-19 among patients with asthma and COPD: a report from the Swedish National Airway Register.

COPD is a risk factor for COVID-19, but does not confer increased severity of the disease.
Jeong JS, Kim JS, You YS, Yeom SW, Lee YC.

Characteristics of patients in platform C19, a COVID-19 research database combining primary care electronic health record and patient reported information.

Bloom CI, Cullinan P, Wedzicha JA.

The Effects of Previous Asthma and COPD on the Susceptibility to and Severity of COVID-19: A Nationwide Cohort Study in South Korea.
Jung Y, Wee JH, Kim JH, Choi HG.

Asthma in older adults with severe COVID-19: clinical outcomes and predictors of mortality.
Avdeev SN, Pozdnakova AA, Gaynitdinova VV, Chikina SY, Vlasenko AE.

O’Connor RJ, Preston N, Parkin A, Makower S, Ross D, Gee J, Halpin SJ, Horton M, Sivan M.
The effects of respiratory exercises on partial pressures of gases and anxiety in the acute phase of COVID-19 infection.

(Spring-Term) Impact of COVID-19

Elkan M, Dvir A, Zaidenstein R, Keller M, Kagansky D, Hochman C, Koren R.

Post-acute COVID-19 syndrome (PCS) and Health related Quality of life (HRQoL)- A systematic review and Meta-analysis.

Persisting symptoms three to eight months after non-hospitalized COVID-19, a prospective cohort study.

Six-Month Pulmonary Impairment after Severe COVID-19: A Prospective, Multicentre Follow-Up Study.

Evolution of COVID-19 symptoms during the first 12 months after illness onset.


Post-acute COVID-19 syndrome negatively impacts physical function, cognitive function, health-related quality of life and participation.

Severe Fatigue in Long COVID: Web-Based Quantitative Follow-up Study in Members of Online Long COVID Support Groups.

Moving towards a Treatable Traits model of care for the management of obstructive airways diseases.

COVID-19 and COPD: Lesson beyond the pandemic.
Obstructive lung diseases burden and COVID-19 in developing countries: a perspective.
Aggarwal AN, Prasad KT, Muthu V.

Chronic obstructive pulmonary disease risk assessment tools: is one better than the others?
Wang JM, Han MK, Labaki WW.

Prevalence and risk factors of musculoskeletal pain in patients with chronic obstructive pulmonary disease: A systematic review.
Latiers F, Vandenabeele M, Poncin W, Reychler G.

10 Year Follow-up of Lung Function, Respiratory Symptoms, and Functional Capacity in the COPDGene Study.
Ragland MF, Strand M, Baraghoshi D, Young KA, Kinney GL, Austin E, Hokanson JE, Regan E, Crapo J, Silverman EK, Make B; COPDGene Investigators.

Chronic obstructive pulmonary disease, exacerbation and self-management: a literature review.
Boyer P.

Association Between Sleep Quality and Pain Intensity in Mild Patients with COPD: A Community Study.

Multicentre comparison of self-management in patients with COPD.
Wakabayashi R, Bourbeau J, Sedeno MF, Motegi T, Kutsuzawa T, Urano T, Kida K.
Self-reported COPD Medication Use and Adherence in the COPD Foundation Patient-Powered Registry Network.

Interventions to improve adherence to pharmacological therapy for chronic obstructive pulmonary disease (COPD).

Integrated disease management interventions for patients with chronic obstructive pulmonary disease.

Influence of asthma and obesity on respiratory symptoms, work ability and lung function: findings from a cross-sectional Norwegian population study.

A pilot investigation of e-cigarette use and smoking behavior among patients with chronic airway disease or respiratory symptoms.

Opioids in patients with COPD and refractory dyspnea: literature review and design of a multicenter double blind study of low dosed morphine and fentanyl (MoreFoRCOPD).

Frailty Assessment in a Stable COPD Cohort: Is There a COPD-Frail Phenotype?
Does Health Literacy Reinforce Disease Knowledge Gain? A Prospective Observational Study of Hungarian COPD Patients.
Papp-Zipernovszky O, Csabai M, Schulz PJ, Varga JT.

Association of Systemic Inflammation with Depressive Symptoms in Individuals with COPD.
Strollo HC, Nouraie SM, Hoth KF, Riley CM, Karoleski C, Zhang Y, Hanania NA, Bowler RP, Bon J, Sciurba FC.

Rate of lung function decline slows in the 3 years after targeted lung denervation in COPD.

Impact of early life exposures on COPD in adulthood: A systematic review and meta-analysis.

Does affiliation to a cross-sectorial lung team impact well-being, health-related quality of life, symptoms of anxiety and depression and patient involvement in patients with COPD? A randomised controlled trial.
Iversen BR, Løkke A, Bregnballe V, Rodkjaer LØ.

Healthcare, Medication Utilization and Outcomes of Patients with COPD by GOLD Classification in England.

Protocol for a feasibility randomized trial of self-management support for people with chronic obstructive pulmonary disease using lay health coaches.
Accuracy and cost-effectiveness of different screening strategies for identifying undiagnosed COPD among primary care patients (40 years) in China: a cross-sectional screening test accuracy study: findings from the Breathe Well group.

Comparison of SpO2 and heart rate values on Apple Watch and conventional commercial oximeters devices in patients with lung disease.
Pipek LZ, Nascimento RFV, Acencio MMP, Teixeira LR.

Treating COPD Patients with Inhaled Medications in the Era of COVID-19 and Beyond: Options and Rationales for Patients at Home.
Ari A, Blain K, Soubra S, Hanania NA.

Patients as team members: Factors affecting involvement in treatment decisions from the perspective of patients with a chronic condition.
Buljac-Samardzic M, Clark MA, van Exel NJA, van Wijngaarden JDH.


Long Term Oxygen Treatment Need is Less Frequent in Eosinophilic COPD Patients.
The "can do, do do" concept in individuals with chronic obstructive pulmonary disease: an exploration of psychological mechanisms.

Nursing Research on Patients with Chronic Obstructive Pulmonary Disease and Respiratory Failure Based on Big Data.

The needs and well-being of severe asthma and COPD carers: A cross-sectional study.

Unmet need in the management of chronic obstructive pulmonary disease in the Middle East and Africa region: An expert panel consensus.

Effects of exposure to ambient air pollution on pulmonary function impairment in South Korea: Korea National Health and Nutritional Examination Survey.

High fitness levels offset the increased risk of chronic obstructive pulmonary disease due to low socioeconomic status: A cohort study.

The Use of Inhaled Corticosteroids for Patients with COPD Who Continue to Smoke Cigarettes: An Evaluation of Current Practice.
Muscle-Bone Crosstalk in Chronic Obstructive Pulmonary Disease.
Zhang L, Sun Y.

Chronic obstructive pulmonary disease and asthma management in older patients.
Kaplan A, Frank C, Molnar F.

Oximetry neither to prescribe long-term oxygen therapy nor to screen for severe hypoxaemia.
Lacasse Y, Thériault S, St-Pierre B, Bernard S, Séries F, Bernatchez HJ, Maltais F.

Role of the Emphysema Index Combined with the Chronic Obstructive Pulmonary Disease Assessment Test Score in the Evaluation of Chronic Obstructive Pulmonary Disease.
Ding Q, Wei X, Li J, Gao YZ, Xu SD, Yu N, Mi JY, Mi BB, Guo YM.

Characteristics of the nocturnal desaturation waveform pattern of SpO(2) in COPD patients: an observational study.