



Respiratory
Effectiveness
Group

Respiratory Effectiveness Group Annual Report 2019

Pioneers in real-life respiratory
data and research

regresearchnetwork.org



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The Respiratory Effectiveness Group looks to a future with Real World Evidence

A global not-for profit, collaboration of clinicians, scientists and epidemiologists, working together to identify and fulfil the real-life research needs in respiratory medicine and advocating for change to drive improved patient management.

Our goal

To transform respiratory patient care by maximising/exploiting/utilising real-life research & evidence

What we want to do

To integrate real-life evidence into clinical practice guidelines, policy and budgetary decision-making for the benefit of all stakeholders in respiratory medicine.

REG strategy

REG will achieve its goal by:

- Nurturing an international network of primary and secondary care respiratory experts with an interest and expertise in real-life research
- Establishing alliances with partner organizations (e.g. APSR, ATS, EACCI, ENCePP, ERS, ESPACOMP, IPCRG, IPSE, ISPOR, patient organisations)
- Using RWE to address current key questions in respiratory medicine and impact on relevant international guidelines and health policies
- Act as a think-tank to meet challenges in respiratory medicine in a pragmatic way
- Together, REG collaborators, partners and supporters, will implement a multi-faceted programme of activities aimed at improving the understanding of respiratory medicine

REG direction and philosophy

- REG leads the development and promotion of high-quality real-life collaborative research in respiratory medicine
- Setting quality standards
 - Real-life research studies, especially database studies, comparative effectiveness research and pragmatic clinical studies
 - Databases to be used in real-life observational research
 - Use of real-life research by guidelines developers and decision-makers
 - Publication of real-life research protocols and results
 - Assessment of real-life research protocols and results
- Academic partner to the International Severe Asthma Registry (ISAR)
- Developing and assessing methods used in real-life research.
eg. bias reduction, patient selection, outcome measures
- Providing advice and methodological help to researchers developing real-life research projects

Operational objectives

RESEARCH:

- Identify and prioritise the real-life RESEARCH NEEDS in each area of respiratory medicine
- Stimulate and drive and/or facilitate the development of collaborative real-life research projects to address the identified needs
- Change the perception of real-life research from “the inside”

COLLABORATION:

- Grow and sustain an international collaboration of clinical and scientific expertise in real-life research, meeting and working together either wholly as REG, or in designated Working Groups
- Trigger, facilitate and nurture the development of networks of partners and supporters involved in real-life observational research, (academic researchers, industry, service providers, guideline developers, decision makers, regulatory agencies, editors, funding agencies, scientific societies, institutional bodies, patients’ organisations) to improve levels of expertise and support the research need initiatives.
- Advocate change to the way journals, guideline bodies and regulatory authorities appraise evidence to better integrate high-quality real-life data into recommendations, clinical decisions and policy making

QUALITY METHODOLOGY:

- Define and set quality standards for real-life research in respiratory medicine, through per protocol historic cohort analyses (database studies) and pragmatic clinical studies
- Develop, assess and standardise coding and methodology used in real-life research
- Develop rational prescribing pathways and clinical management & decision support tools
- Drive the publication and appreciation of real-life research validity by
 - Quality publications in high impact journals
 - Incorporation of real-life research into guideline development and health care resource utilisation decision makers
- Be the “Go to” organisation for advice, assistance and training on real-life research in respiratory medicine

REG’s Structure

REG Board

BOARD COMPOSITION 2018-2020

President – Nikos Papadopoulos, *Professor of Allergy and Paediatric Allergy, University of Manchester, UK*

Vice President for Scientific Outputs – Omar Usmani, *Reader in Respiratory Medicine and Consultant Physician at the National Heart and Lung Institute (NHLI), Imperial College London & Royal Brompton Hospital (RBH).*

Vice President for Methodology – Nicolas Roche, *Pneumologie et soins intensifs respiratoires, groupe hospitalier Cochin, Assistance publique-Hôpitaux de Paris, and Université Paris Descartes, France*

Vice President for Internal Organisation – Antonio Anzueto, *Pulmonary/Critical Care, University of Texas Health Science Center at San Antonio, USA*

Vice President for Global Collaboration – Walter Canonica, *Chairman of Dept of Medical Specialties at the University Hospital S. Martino Genoa, Italy*

Vice President for Finances and Supporter relationships – Dermot Ryan, *Strategic Clinical Director Optimum Patient Care*

Vice President for Communications – Sinthia Bosnic-Anticevich, *Woolcock Institute of Medical Research, University of Sydney, Australia*

Vice President for Events – Alan Kaplan, *Department of Family and Community Medicine, University of Toronto, Toronto, Ontario, Canada*

Marc Miravittles - *Investigador Senior / Senior Researcher, Pneumologia, Hospital Universitari Vall d'Hebron (HUVH), Vall d'Hebron Institut de Recerca (VHIR), Barcelona, Spain*

Joan B Soriano - *Associate Professor of Medicine, Hospital Universitario de la Princesa, Universidad Autónoma de Madrid, Diego de León 62, Madrid, Spain*

Oversight Committee members - Nick May, Trevor Lambert, Keith Allan

The Board members reflect the high calibre of our collaborators and offers wonderful clinical and research expertise with broad geographical reach:

- Asia-Pacific, Europe & North America
- Asthma, Allergy, COPD
- Primary, secondary & pharmacy care
- Adult and paediatric specialisms

Board of Directors – Vice Presidents

Vice Presidents have political responsibility for specific domains. They collaborate with the President, the CEO and domain experts to direct the execution of the relevant tasks.

Vice President for Scientific Outputs – Omar Usmani

Works towards maximisation of scientific output impact (papers, abstracts, stand-alone documents), by optimally exploiting the existing and identifying new sources of information (databases, registries, open-source data), optimising the researcher group and identifying the optimal publication platforms

Vice President for Methodology – Nicolas Roche

Ascertains that REG remains at the forefront of developments in real-life research by advocating for the state-of-the-art and developing novel methods for assessing, validating and expanding the scope of the field

Vice President for Internal Organisation – Antonio Anzueto

Responsible for the internal structure, including workgroup organisation, interactions between board, administrators, researchers and collaborators

Vice President for Global Collaboration – Walter Canonica

Liaison and Ambassador with major international organisation

Vice President for Finances and Supporter relationships – Dermot Ryan

Oversees the financial health of the organisation. Builds and conserves relationships with the Supporters

Vice President for Communications – Sinthia Bosnic-Anticevich

Takes the lead in optimising the image of REG towards the academic community, as well as towards the public and its media presence, including website, social media and press

Vice President for Events – Alan Kaplan

Takes the lead in proposing, designing and making sure the purpose is met for the REG Summit and other events/meetings

The year in review

Staff

In January, our admin supporter Katherine Brown decided to move on from REG and in the latter stage of the year Naomi Lauanders also departed REG to complete a PhD. We were pleased welcome to Graham Lough to the REG team as scientific researcher to replace Naomi. We are very appreciative and acknowledge all the great work that the REG researchers (Sarah, Naomi and Graham) have done in 2019.

Governance

Our REG Board has met regularly during 2019 to address the organisational needs and are well aware of the need to grow collaborations and supporters. Work is continuing with the development of a new legal entity in the EU, to address the post-Brexit situation and access to EU opportunities.

Scientific outputs

REG has seen another productive year, continuing the momentum achieved by the outputs of our Working Groups. The 14 working groups continue to develop or execute defined projects in their respective scopes of operation. Working Group meetings were held at the REG Summit in March in Athens and in conjunction with the ERS Congress in September/October in Madrid. In addition, many Working Groups and projects are in regular communication to progress their projects. For more detailed information on the Working Groups and their projects, please refer to the Working Groups report. During this past year, 8 pieces of original research were published and a further 5 manuscripts are in final stage of writing or submitted for review in 2019 and there are currently five active studies.

Finance

Finance continues to be a challenge, with income relatively stable in 2019. However, careful planning and use of resources have enabled REG to deliver an equal year-on-year level of output carrying a small operating loss. We continue to question our spending and aim to further reduce our administrative costs over the course of the 5-year financial plan. The valuable work of REG, both in terms of its research networks and its political influence depends on the continued collaboration with our valued supporters and we thank them for their on-going financial and expert contributions.

Meetings

The annual REG Summit remains a key vehicle to showcase the many achievements of the organisation and our valued Collaborators, together with providing an interactive programme of

presentations and debates covering the hot topics in respiratory medicine. REG Summit 2019 took place in Athens, 28-30 March – a report on this meeting appears later in this update as well as our other congress activities in 2019.

Communications

Following a corporate rebranding in the latter part of 2018, the new branding has been applied across all channels. A new website has been launched in line with this new branding. REG also changed the name of its website and email address to www.regresearchnetwork.org, which better reflects the activities of the group. The REG Newsletter was re-instituted to provide REG collaborators and supporters with updates of the work of the REG.

International Conference & Congress Activities

REG Summit 2019, Athens 28 - 30 March 2019

The REG Summit 2019, titled “Capitalizing on real-life research for best clinical guidance” lived up to expectations. Taking place in Athens, Greece and being attended by 99 delegates from 23 countries, the event brought together a group engaged researchers, students and industry collaborators who are working together and looking for opportunities to establish new collaborations. Noted international speakers created seven plenaries, three pro-con debates and one panel discussion.

We held meetings of 10 Working Groups, which were well attended with reviews of current outputs and wonderful ideas for new initiatives. We had twenty abstracts submitted/presented during our poster sessions.

The place of triple therapy in COPD was debated by Prof. Alberto Papi and Prof. Marc Miravittles. They came to the conclusion that ICS should be added to the COPD patient who needs it, a discussion that continues to this day! My personal take is that ICS should be used for patients with COPD who have any hint of asthma, recurrent exacerbations, especially if the blood eosinophil count is > 300 and perhaps those who have required hospitalization for a COPD exacerbation.

The role of immunotherapy in asthma was discussed by Prof. Moises Calderon, Prof Frederic de Blay, Prof Carmen Vidal, and our own Prof Nikos Papadopoulos who did a fascinating comparison of immunotherapy vs biologics!

Prof David Price led a spirited discussion about the exciting future of the International Severe Asthma Registry.

Prof Kevin Flaherty gave us insights on why an earlier diagnosis and thus earlier treatment of IPF could have improved outcomes in this devastating illness.

Prof Ken Chapman and Prof Mark Fitzgerald debated on the place of regular vs prn ICS in mild Asthma, again agreeing that ICS is superior, but some ICS is better than none!

Controversies in pediatric asthma were reviewed. A debate re abandoning the term of ‘preschool wheeze’ by Prof Adnan Custovic and Prof Steve Turner was entertaining and thought provoking. Prof Francine Ducharme gave an insightful talk on asthma severity measurements in children.

Prof Jan Willem Kocks reviewed issues in inhaler technique and gave us tips on improving adherence in our patients.

Dr Alan Kaplan gave a talk on vaccinating the patient with respiratory illness.

We had a tremendous panel reviewing all the treatments for severe asthma from non-biologics to biologics including Anti IgE, anti IL5 and anti IL4-13 by Professors Mina Gaga, Peter Barnes, Liam Heaney, Andrew Menzies Gow and Walter Canonica. Prof Papadopoulos created the groundwork of a potential REG algorithm for choosing therapy in severe asthma.

Our conference ended with a keynote talk by Prof Jean Bousquet who described his real-life research with a new app called MASK which gathers data from patients around the world under the ARIA (Allergic Rhinitis in Asthma) banner. What a wonderful way to cap off a conference for Real Life Research which is really the mantra of the Respiratory Effectiveness Group.

ERS Congress, Madrid, 28 September - 2 October 2019

REG held a full timetable of Working Group meetings on Saturday 28th September and Sunday 29th September in conjunction with the ERS Congress in Madrid. Sessions were held to progress work by most Working Groups as well very invigorating discussions on some of the broad issues that still require a clear methodology to investigate further.

Working group update

Adherence Working Group

The Working Group have completed the *Bi-directional relationship of adherence and control in asthma control* study with Marcia Vervloet presenting the data at the ESTACOMP meeting in Portugal and a manuscript published in JACI in practice; *The Relationship Between Real-World Inhaled Corticosteroid Adherence and Asthma Outcomes: A Multilevel Approach* concludes that patients may adapt their inhaled corticosteroid use to their current needs without this impacting later risk domain asthma control.

At the REG summit 2019 the Working Group discussed new project ideas, following this the Working Group have developed a proposal for 2 scoping reviews for which REG are now seeking funding; one review will assess how adherence is included within current guidelines and the second review will assess how precision medicine can be used to monitor and manage adherence. It is hoped these scoping reviews will help inform a future study that would combine database records and a prospective component to assess the different methods of adherence monitoring and the responsiveness and utility of database measures in predicting non-adherence.

Allergy Working Group

The Allergy Working Group, chaired by Moises Calderon, had a follow-up meeting during the EAACI congress in Lisbon in June 2019 to discuss a new project looking at the impact of allergy immunotherapy (AIT) in airways disease. This new project in development is now called the GRAAIL Project, (Global Respiratory Allergy and Allergen Immunotherapy Real Life Registry) which is planned to be a registry of patients receiving AIT. The objectives, methodology and funding strategy for this ambitious project are being finalised and will be discussed further at the EAACI meeting in 2020.

Asthma-COPD Overlap (ACO) Working Group

The Phase I Asthma-COPD Overlap (ACO) proof of concept study has been completed with the publication of a paper entitled Prevalence and Characteristics of Asthma- COPD Overlap in Routine Primary Care Practices in the Annals of the American Thoracic Society, which found that 20% of individuals with a diagnosis of COPD, asthma, or both asthma and COPD in primary care settings have ACO based on the REG ACO Working group criteria. The group was planning a phase II study to assess the implications of ACO; REG have determined that OPCR contains sufficient numbers of patients meeting the required criteria for this study to be feasible. It now remains to be determined whether there is sufficient interest in ACO to pursue this project further.

Child Health Working Group

The analysis for the *Comparative effectiveness of the addition of antibiotics versus usual care in asthma exacerbations* study has been completed and a manuscript is now being prepared for publication. Results show high levels of antibiotic prescribing, however, there was no significant benefit found of a single course of antibiotics alongside oral corticosteroids for the treatment of acute asthma exacerbations.

Funding has been secured for the *Paediatric Asthma in Real Life (PeARL)* project, led by Nikos Papadopoulos, which aims to produce evidence-based recommendations regarding controversial aspects of paediatric asthma using knowledge gaps surveys, systematic reviews, meta-analyses and Delphi exercises. The gaps survey has been conducted and systematic reviews are underway.

Cost effectiveness Working Group

The cost effectiveness group did not meet at ERS 2019. The working group plans to build projects in collaboration with other working groups and add value to planned or existing projects.

COPD Working Group

The analysis of the data from the international multicentre, prospective observational *Concept of control in COPD* study has been completed and Marc Miravittles presented the data at the COPD Working Group meeting at ERS 2019. A manuscript of the final results has been submitted for publication. A sub-analysis comparing the clinical characteristics between the Asian and Western patients in this study has been published in the International Journal of COPD. Having developed a network of centres and following the enthusiasm of the participating centres the Working Group has decided to conduct another prospective observation study. This next study will be led by Omar Usmani and will investigate the predictive value of peak inspiratory flow in COPD exacerbations. Funding for this study has been secured from Boehringer Ingelheim and study setup is now underway.

The *Real-Life WISDOM* project, which is a database study to assess the implications of ICS withdrawal in the management of COPD, has received funding from Boehringer Ingelheim and the data analysis is currently underway.

Following the publication of a pilot study in 2018 into the trends of testing for and diagnosis of alpha-1 antitrypsin deficiency (AATD) in the UK, it has been decided to seek funding for a more comprehensive study into the epidemiology and natural history of AATD.

Cough Working Group

Top line results of the Phase I project Burden of Cough in Adults seen in UK Primary Care were presented in the Cough Working Group meeting at ERS 2019 by Prof. Lorcan McGarvey. The results showed that cough consultations account for a high burden of primary care consultation. 4.8% of all patients with a consultation in the study period had a consultation for cough. There was a female predominance (57.3%). More patients were female in those under 65, while those over 65 were predominantly male patients. Patients were more likely to be obese or current/ex-smokers than the general population. 49% of patients had a respiratory comorbidity, of which asthma was the most common (22.9%), followed by rhinitis (21.8% of which 6.9% was active in baseline) and COPD (15.4%). The most common non-respiratory comorbidities were depression (41.6%, of which 17% was active in baseline) and hypertension (32.7%). The final report of the project will be circulated with the study group and discussions have begun on the design for the Phase II project.

Database and Coding Working Group

The *Towards Optimum Reporting of Pulmonary Effectiveness Databases and Outcomes (TORPEDO)* project which used a 3-phase modified Delphi to determine lists of minimally required variables for retrospective and prospective asthma and COPD studies has now been completed. A manuscript of the results has been prepared and will soon be submitted for publication, and this is an important step in facilitating the sharing and merging of datasets. A proposal is being developed for the next phase of this work, which will involve compiling a list of available data sources that contain the minimally required variables for asthma and COPD studies and a tool to aid the selection of variables for future prospective studies.

The Working Group has also been considering projects around the common data model and how REG could help ensure the effective coding of respiratory variables.

ILD/IPF Working Group

Phase I of the project “The characterisation of interstitial lung disease multidisciplinary team meetings: a global study” was published in *European Respiratory Journal – Open Research* in early 2019. The ILD/IPF working group met at ERS 2019, where the second phase of the project to characterise multidisciplinary team meetings used to diagnose ILD, and the effect these characteristics have on diagnostic agreement was further discussed. The methodology and technological requirements of the Phase II project continue to be a challenge and solutions are being further explored.

Quality standards Working Group

In 2019, results of the REG-EAACI taskforce project to produce a tool to judge the quality of comparative effectiveness literature were published in the journal *Clinical and Translational Allergy (CTA)* journal. The tool (REal Life EVIDence Assessment Tool; RELEVANT) is available for use on the REG website. The working group will continue to evaluate further standard setting opportunities.

Severe Asthma and Biomarkers Working Group

The Working Group have updated the *Point-of-care biomarkers in asthma management: time to move forward* letter that highlights the importance of clinical biomarkers, such as FeNO in the diagnosis and management of asthma, and the need to include data from real-life studies, alongside clinical trial data, when considering the inclusion of biomarkers into guidelines and this has now been accepted for

publication in Allergy. The Working Group met at both the REG summit 2019 and ERS 2019 and have begun discussing potential ideas for future projects.

Sleep Breathing Disorders Working Group

In 2019 there was no activity from this working group. A further evaluation of potential projects will be undertaken but will be dependent on interest and support from working group members.

Small Airways Working Group

There was no Working Group meeting at the ERS 2019, however, there is some overlap of ideas with the Technologies Working Group. Omar Usmani is working on a manuscript “what is meant by dose”. The future direction of this group remains under discussion.

Technology Working Group

Ron Dandurand chaired the working group meeting at ERS 2019 in September and reviewed the working groups projects. A scoping review of smart inhalers is currently still seeking funding, while a proposal for an opinion piece on the utility of oscillometry is being finalised and support is likely. Finally, the group have been discussing the possibility of examining how technology can be used to define and predict asthma exacerbations and the potential to measure adherence, however, these projects require further discussion.

Active and planned projects

Project name	Description	Current phase
ACO		
ACOS Proof of Concept Study: Phase II	A database study to determine the functional consequences of an ACO diagnosis, in terms of treatments, outcomes and healthcare utilisation, compared to either asthma or COPD diagnosis alone	Under discussion/consideration
Adherence		
Literature reviews to assess how adherence is currently incorporated within guidelines and to determine how adherence can be monitored and managed with personalised medicine.	Scoping literature review	Seeking funding
Allergy		
AIT registry	Registry of patients prescribed AIT	Proposal in development
Child health		



Usual Care ± antibiotics for the management of asthma exacerbations	A database study to assess the clinical implications of combining antibiotics with usual care (oral steroids) for the management of asthma exacerbations	Manuscript being finalised for submission
PeARL: Paediatric Asthma in Real Life	A standard setting exercise in paediatric asthma based on systematic review, expert consensus and ontological analysis of the unanswered questions in paediatric asthma	Systematic reviews being conducted
COPD		
Validation of the Concept of Control of COPD in Clinical Practice: Phase II	An 18-month international prospective study to assess the levels of COPD control and the clinical implications of control status	Manuscript submitted
Real Life Wisdom	A database study to determine the effect of withdrawing inhaled corticosteroids	Final report completed and manuscript in development
PIF in COPD	A prospective trial to assess the role of PIF in predicting COPD exacerbations	Awaiting ethics committee approvals
Modern Epidemiology - Alpha 1 [AATD] Burden - P2	Assess prevalence, incidence and mortality of patients with alpha-1 antitrypsin deficiency in routine care patients with/without COPD	Project in development
Chronic Cough		
Burden of cough in UK primary care: Phase I	A database study to characterise cough in primary care	Final report completed
Database and coding		
Towards Optimum Reporting of Pulmonary Effectiveness Databases and Outcomes (TORPEDO): a REG/UNLOCK initiative	A Delphi study to provide recommendations and tools to help inform the design of databases for observational research in respiratory and allergic airways disease	Finalising manuscript for submission
ILD/IPF		
Missed diagnostic opportunities in IPF	A database study to characterise primary care	Manuscript under revision



	interactions in the years prior to idiopathic pulmonary fibrosis (IPF) diagnosis and potential missed diagnostic opportunities	
ILD MDT: Global Evaluation of ILD Diagnostic Practice: Phase II	A study utilising ILD case information to determine how varying diagnostic practice and settings affects diagnostic agreement	Protocol in development and logistics being resolved.
Quality Standards		
REG/EAACI Taskforce Asthma Comparative Effectiveness Literature Quality Review	A project to develop tools to facilitate quality appraisal of published respiratory comparative effectiveness research	Two manuscripts accepted for publication in Clinical and Translational Allergy
Small airways		
Making sense of dose	An opinion seeking study to investigate the views of different disciplines regarding what “dose” means to them, in order to explore and potentially harmonise the terminology around ICS dosing	Recruitment of multidisciplinary team underway
Technologies		
Scoping review of smart inhalers	A scoping review of user needs, acceptance, feasibility and utility of smart inhalers from a medical professional's point of view	Seeking funding
Oscillometry opinion piece	An expert opinion on the utility of oscillometry	Finalising project proposal

Publications in 2019

In 2019, eight REG research projects were published. A further five manuscripts were being finalised or submitted in 2019. A full list of REG research publications is available on the REG website:

<http://regresearchnetwork.org/reg-research-publications/>

Point - of - care biomarkers in asthma management: time to move forward

Alving, K., Diamant, Z., Lucas, S., Magnussen, H., Pavord, I. D., Piantentini, G. Price, D., Roche, N., Sastre, J., Thomas, M., Usmani, O., Bjermer, L., Respiratory Effectiveness Group, Biomarkers Working Group. (2019) 'Point-of-care biomarkers in asthma management: time to move forward', Allergy

The relationship between real-world inhaled corticosteroids adherence and asthma outcomes: a multilevel approach

Vervloet, M., van Dijk, L., Spreeuwenberg, P., Price, D., Chisholm, A., Van Ganse, E., Pinnock, H., Rand, C. S., Eakin, M. N., Schermer, T., Souverein, P. C., Dima, A. L., Respiratory Effectiveness Group's Adherence Working Group. (2019) 'The relationship between real-world inhaled corticosteroids adherence and asthma outcomes: a multilevel approach', J Allergy Clin Immunol Pract

The importance of real-life research in respiratory medicine: manifesto of the Respiratory Effectiveness Group: Endorsed by the International Primary Care Respiratory Group and the World Allergy Organization

Roche, N., Anzueto, A., Bosnic Anticevich, S., Kaplan, A., Miravittles, M., Ryan, D., Soriano, J. B., Usmani, O., Papadopoulos, N. G., Canonica, G. W., Respiratory Effectiveness Group Collaborators. (2019) 'The importance of real-life research in respiratory medicine: manifesto of the Respiratory Effectiveness Group: Endorsed by the International Primary Care Respiratory Group and the World Allergy Organization', Eur Respir J, 54 (3).

Management Of Community-Acquired Pneumonia: An Observational Study In UK Primary Care

Launders, N., Ryan, D., Winchester, C.C., Skinner, D., Konduru, P. R., Price, D. B. (2019) 'Management Of Community-Acquired Pneumonia: An Observational Study In UK Primary Care', Prag Obs Res, 10, 53-65.

Prevalence and Characteristics of Asthma-COPD Overlap in Routine Primary Care Practices

Krishnan, J. A., Nibber, A., Chisholm, A., Price, D., Bateman, E. D., Bjermer, L., van Boven, J. F., Brusselle, G., Costello, R. W., Dandurand, R. J., Diamant, Z., Van Ganse, E., Gouder, C., van Kampen, S. C., Kaplan, A., Kocks, J., Miravittles, M., Niimi, A., Pizzichini, E., Rhee, C. K., Soriano, J. B., Vogelmeier, C., Román-Rodríguez, M., Carter, V. and Roche, N. (2019) 'Prevalence and Characteristics of Asthma-COPD Overlap in Routine Primary Care Practices', Ann Am Thorac Soc, 16(9).

The characterisation of interstitial lung disease multidisciplinary team meetings: a global study

Richeldi, L., Launders, N., Martinez, F., Walsh, S. L. F., Myers, J., Wang, B., Jones, M., Chisholm, A. and Flaherty, K. R. (2019) 'The characterisation of interstitial lung disease multidisciplinary team meetings: a global study', ERJ Open Res, 5(2).

Quality standards in respiratory real-life effectiveness research: the REal Life EVidence AssessmeNt Tool (RELEVANT): report from the Respiratory Effectiveness Group-European Academy of Allergy and Clinical Immunology Task Force

Roche, N., Campbell, J. D., Krishnan, J. A., Brusselle, G., Chisholm, A., Bjermer, L., Thomas, M., van Ganse, E., van den Berge, M., Christoff, G., Quint, J., Papadopoulos, N. G. and Price, D. (2019) 'Quality standards in respiratory real-life effectiveness research: the REal Life EVidence AssessmeNt Tool (RELEVANT): report from the Respiratory Effectiveness Group-European Academy of Allergy and Clinical Immunology Task Force', *Clin Transl Allergy*, 9, pp. 20.

The REal Life EVidence AssessmeNt Tool (RELEVANT): development of a novel quality assurance asset to rate observational comparative effectiveness research studies

Campbell, J. D., Perry, R., Papadopoulos, N. G., Krishnan, J., Brusselle, G., Chisholm, A., Bjermer, L., Thomas, M., van Ganse, E., van den Berge, M., Quint, J., Price, D. and Roche, N. (2019) 'The REal Life EVidence AssessmeNt Tool (RELEVANT): development of a novel quality assurance asset to rate observational comparative effectiveness research studies', *Clin Transl Allergy*, 9, pp. 21.



Financial summary

Profit and Loss

Respiratory Effectiveness Limited Trading as REG [Respiratory Effectiveness Group]

For the year ended 31 December 2019

	2019	2018
Turnover		
Restricted Income	101,949.39	161,010.33
Unrestricted Income	126,097.00	219,062.28
Total Turnover	228,046.39	380,072.61
Cost of Sales		
Research Costs	93,042.51	144,204.66
Summit Costs	1,962.72	98,632.52
Total Cost of Sales	95,005.23	242,837.18
Gross Profit	135,003.88	235,867.95
Administrative Costs		
Administrative Costs	152,138.20	170,035.17
Total Administrative Costs	152,138.20	170,035.17
Total Costs	247,143.43	412,872.35
Net Profit/(Loss)	(19,097.04)	(32,799.74)



Balance Sheet

Respiratory Effectiveness Limited Trading as REG [Respiratory Effectiveness Group]
As at 31 December 2019

	31 DEC 2019	31 DEC 2018
Assets		
Bank		
BARC EUR	28,252.54	6,948.52
BARC GBP	5,193.20	30,166.69
BARC USD	12,986.20	100,551.27
Total Bank	46,431.94	137,666.48
Current Assets		
Accounts Receivable	221,250.00	1,096.25
Prepayments	1,911.49	1,911.49
Total Current Assets	223,161.49	3,007.74
Other Debtors	793.10	403.10
Total Assets	270,386.53	141,077.32
Fixed Assets		
Tangible Assets		
Office Equipment - accumulated depreciation	(449.67)	(449.67)
Office Equipment - at cost	586.33	586.33
Total Tangible Assets	136.66	136.66
Total Fixed Assets	136.66	136.66
Total Assets	270,523.19	141,213.98
Liabilities		
Creditors Liabilities		
Accounts Payable	26,751.91	68,015.38
Accruals	13,355.03	13,355.03
Deferred Revenue	248,600.00	66,642.00
PAYE & NIC Control	89.19	1,623.96
Pension Fund	76.16	210.48
Suspense	3.65	-
VAT Control	23,643.45	14,569.75
REG Barclaycard	429.24	125.78
Total Creditors Liabilities	312,948.63	164,542.38
Total Liabilities	312,948.63	164,542.38
Total Liabilities	312,948.63	164,542.38
Net Assets	(42,562.10)	(23,465.06)
Equity		
Accumulated Surplus	(23,328.40)	9,471.34
Current Year Earnings	(19,097.04)	(32,799.74)
Total Equity	(42,425.44)	(23,328.40)