OPRI 24th Anniversary
Observational & Pragmatic Research Institute

JULY 2025

OPRI NEWSLETTER

STRIVING TO IMPROVE THE LIVES OF PATIENTS THROUGH REAL LIFE RESEARCH

Volume 7

PUBLICATION SPOTLIGHT

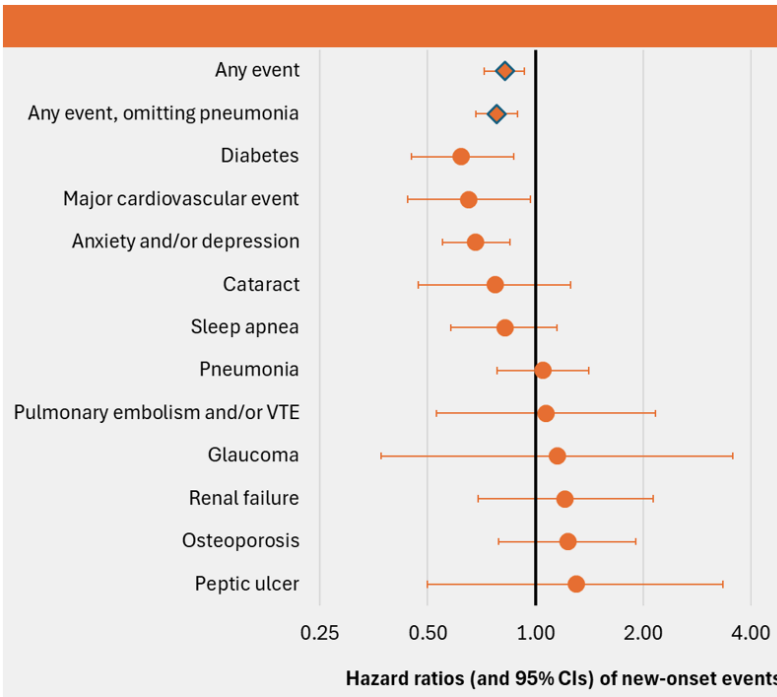
ISAR's **SOLAR II** was published in the esteemed **Blue Journal, *AJRCCM***

- Patients starting biologics had fewer serious side effects—38% less diabetes, 35% fewer heart events (MACE), and 32% less anxiety/depression
- The protective effects of biologics on systemic outcomes are comparable to statins (25–27% cardiovascular risk reduction) and metformin (35% diabetes risk reduction)This is the first large study to show that biologics for asthma help prevent major health problems beyond reducing steroid use.

Publication

Slide Deck

Press Release



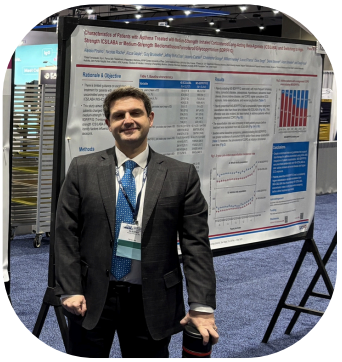
Group	N (total)	N (events)	HR (95% CI)	p-value
Non-initiators	36,845	7,062	Ref.	
Bx initiators	5,633	736	0.82 (0.72-0.93)	0.002
Non-initiators	36,845	6,473	Ref.	
Bx initiators	5,633	601	0.78 (0.68-0.89)	<0.001
Non-initiators	31,650	1,139	Ref.	
Bx initiators	5,010	90	0.62 (0.45-0.87)	0.006
Non-initiators	36,779	883	Ref.	
Bx initiators	5,258	63	0.65 (0.44-0.97)	0.034
Non-initiators	24,004	2,966	Ref.	
Bx initiators	4,517	170	0.68 (0.55-0.85)	0.001
Non-initiators	34,542	463	Ref.	
Bx initiators	5,224	69	0.77 (0.47-1.25)	0.293
Non-initiators	34,281	720	Ref.	
Bx initiators	4,863	102	0.82 (0.58-1.15)	0.242
Non-initiators	36,803	881	Ref.	
Bx initiators	5,383	154	1.05 (0.78-1.41)	0.752
Non-initiators	35,994	211	Ref.	
Bx initiators	5,162	23	1.07 (0.53-2.16)	0.840
Non-initiators	36,361	87	Ref.	
Bx initiators	5,447	15	1.15 (0.37-3.56)	0.810
Non-initiators	35,275	437	Ref.	
Bx initiators	5,480	36	1.21 (0.69-2.13)	0.514
Non-initiators	35,238	329	Ref.	
Bx initiators	4,885	103	1.23 (0.79-1.90)	0.352
Non-initiators	35,791	113	Ref.	
Bx initiators	5,396	17	1.30 (0.50-3.33)	0.600

OPRI EVENTS 2025

Characteristics of Patients with Asthma or Asthma-Chronic Obstructive Pulmonary Disease (COPD) Overlap Treated with Medium-Strength Inhaled Corticosteroid / Long-Acting Beta-Agonists (ICS/LABA) and Switching to High-Strength ICS/LABA or Medium-Strength Beclomethasone/Formoterol/Glycopyrronium (BFG)

Presenter: **Alessio Piraino**

- To characterise real-world patient profiles associated with the prescription of medium-strength BDP/FF/G (triple therapy) versus high-strength ICS/LABA in adults with uncontrolled asthma previously treated with medium-strength ICS/LABA.
- Despite guideline recommendations treating both options as same-step therapies, msBDP/FF/G was more commonly prescribed to patients with more severe disease profiles—those who were older, active smokers, had more comorbidities, and worse asthma control. Further adjusted comparisons of treatment outcomes are needed.



ABSTRACT

POSTER

OPRI EVENTS 2025

The compAIR study: The carbon footprint of asthma inhalers before and after initiation of Fostair MART

Presenter: **Freya Tyrer**

- To investigate the impact of initiating beclometasone/formoterol maintenance and reliever therapy (FMART) on the carbon footprint of inhaler use in patients with asthma in a real-world UK setting.
- Initiation of FMART was associated with a reduction in the total carbon footprint of asthma inhaler-related greenhouse gas emissions, primarily driven by decreased SABA use—highlighting the role of optimized asthma management in supporting environmentally sustainable healthcare.

ABSTRACT POSTER

Time from initial referral for specialist care until initiating biologic therapy for patients with severe uncontrolled asthma

Presenter: **Dr John Busby**

- To evaluate the time from initial referral for specialist care to the first recorded biologic asthma therapy prescription among patients with severe asthma in the United Kingdom and Australia using real-world electronic medical records.
- There is a substantial delay—median 4.4 years in the UK and 3.3 years in Australia—between initial primary care referral and initiation of biologic therapy for patients with severe asthma, highlighting a critical gap in timely access to advanced treatment. Strategies such as integrating GP and community respiratory clinics with specialist oversight may help reduce delays and improve outcomes.

ABSTRACT POSTER

OPRI EVENTS 2025

Characteristics of asthma patients escalating from msICS/LABA to hsICS/LABA or msBDP/FF/G

ABSTRACT Oral

Presenter: **Alexander Roussos**

- To evaluate real-world patient characteristics associated with the choice of escalation to either medium-strength triple therapy (msBDP/FF/G) or high-strength ICS/LABA (hsICS/LABA) in adults with uncontrolled asthma on medium-strength ICS/LABA, in line with GINA 2024 guidance.
- In clinical practice, msBDP/FF/G was more commonly prescribed to patients with more severe disease profiles—older age, active smoking, more comorbidities, higher oral corticosteroid use, and poorer lung function—highlighting the need for adjusted comparisons to assess the relative efficacy of these two step-up treatment options.

Oral corticosteroid prescribing increases healthcare costs in Australian patients with asthma

ABSTRACT Oral

Presenter: **John W. Upham**

- To quantify the healthcare costs associated with systemic corticosteroid (SCS) use and SCS-related comorbidities in Australian adults with asthma using real-world primary care data.
- More than half of Australian asthma patients were prescribed SCS, which was associated with significantly higher healthcare costs—particularly from pneumonia and cardiovascular conditions. These findings underscore the need to better understand and reduce SCS use to alleviate the clinical and economic burden.

High-risk COPD patient management opportunities: Australia, US and UK comparisons

ABSTRACT Oral

Presenter: **Dr Belinda Cochrane**

- To evaluate management practices for high-risk COPD patients in Australia and compare them with those in the US and UK, identifying opportunities for improvement based on clinical guidelines and CONQUEST Quality Standards.
- Significant opportunities exist to improve COPD care for high-risk patients in Australia, particularly in providing regular COPD reviews and smoking cessation support. These findings mirror international gaps and highlight the need for enhanced alignment with best practice standards.

Adopting Australian Asthma Handbook's Option A could reduce carbon footprint

ABSTRACT Oral

Presenter: **Dr Belinda Cochrane**

- To estimate the potential reduction in carbon footprint if Australian asthma patients switched from SABA reliever inhalers to budesonide/formoterol (BF) dry powder inhalers (DPI) as recommended in Option A of the 2023 Australian Asthma Handbook (AAH).
- Switching to ICS/formoterol DPI (Option A of the 2023 AAH) could reduce the annual treatment-related carbon footprint by 98%, highlighting a major environmental benefit. Further research is needed to assess the carbon impact across other aspects of asthma management.

OPRI EVENTS 2025

ATS 2025

Pre-Conference May 16 & 17
International Conference May 18-21
San Francisco

The BETRI study: preliminary information on characteristics of patients with asthma or asthma and concomitant COPD overlap treated with Medium-Strength Inhaled Corticosteroid / Long-Acting Beta-Agonists (ICS/LABA) and switching to High-Strength ICS/LABA or Medium-Strength Beclomethasone / Formoterol /Glycopyrronium (BDP/FF/G)

ABSTRACT

POSTER

Presenter: **Alessio Piraino**

- To examine real-world patient characteristics associated with the initiation of medium-strength ICS/LABA/LAMA (msBDP/FF/G) versus high-strength ICS/LABA (hsICS/LABA) in adults with asthma whose condition remained uncontrolled on medium-strength ICS/LABA therapy.
- In real-world practice, msBDP/FF/G was more frequently prescribed than hsICS/LABA for patients with more severe disease profiles, including older age, active smoking status, concomitant COPD, more frequent exacerbations, higher SABA and steroid use, and greater cardiovascular comorbidity. These findings highlight the need for adjusted comparisons to assess treatment efficacy across these patient groups.

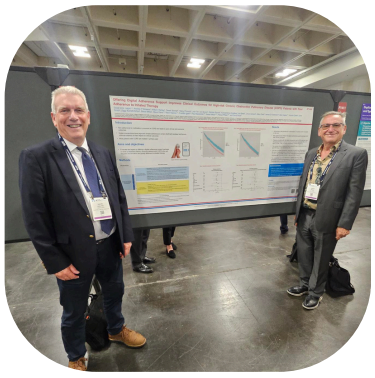
Impact of Biologic Initiation on New-Onset of Corticosteroid-Related Adverse Effects in Patients with Severe Asthma (SOLAR II)

ABSTRACT

Presenter: **Ghislaine Scelo**

- Use of oral corticosteroids (OCS), both as maintenance treatment and for exacerbations, is associated with serious adverse effects (AEs). Biologic use decreases the need for OCS in patients with severe asthma and therefore could reduce the risk of OCS-related AEs. Exploring this relationship could inform treatment decisions and highlight the benefits of biologics beyond asthma control.
- Initiation of biologics in patients with severe asthma was associated with reduction in their risk of new-onset OCS-related AEs, including diabetes, anxiety/depression, and major cardiovascular events.

Offering Digital Adherence Support Improves Clinical Outcomes for High-Risk Chronic Obstructive Pulmonary Disease (COPD) Patients With Poor Adherence to Inhaled Therapy



Presenter: **Professor David Halpin**

- To evaluate the impact of a digital adherence support intervention on clinical outcomes in high-risk COPD patients in a real-world primary care setting through a 12-month cluster randomised trial.
- Offering a digital intervention to improve medication adherence significantly reduced the risk of treatment failure by nearly 25% and lowered exacerbation rates by over 10% in high-risk COPD patients, marking the first large-scale, real-world evidence of improved clinical outcomes from such an intervention.

ABSTRACT | POSTER | Interview with touchRespiratory

OPRI EVENTS 2025

ATS 2025

Pre-Conference May 16 & 17

International Conference May 18-21

San Francisco

CONQUEST

Collaboration On Quality Improvement Initiative for Achieving Excellence in Standards of COPD Care.

- The **CONQUEST team and US collaborators** convened in **San Francisco** to review progress with the US program, noting that the three participating healthcare systems are all in the follow-up phase of the trial and discussing opportunities to raise awareness following the publication of the most recent US manuscript *"Practical Strategies for Achieving System Change in the US: Lessons and Insights from the CONQUEST Quality Improvement Program."*

CONQUEST MEETING held on 17 May 2025 in San Francisco

- The **US National Steering Committee** further shared strategies for implementing CONQUEST across diverse US healthcare systems and ensuring its sustainability.
- Discussions also covered future abstracts and presentations, with a focus on exploring the link between COPD and cardiovascular risk and identifying key clinical characteristics to study as new biologic therapies for COPD emerge.

MID-YEAR PUBLICATIONS ROUND-UP

PUBLICATION	SUMMARY
Practical Strategies for Achieving System Change in the US: Lessons and Insights from the CONQUEST Quality Improvement Program Evans A et al *Prim Health Care Res Dev* Full Publication Slide Deck	**Aim:** This paper aims to identify and articulate practical strategies for achieving system-wide change in U.S. healthcare, drawing lessons and insights from the Conquest Quality Improvement Programme to inform effective implementation at scale. **Conclusion:** conclude that successful system transformation relies on embedding tailored improvement methods, harnessing multidisciplinary teamwork, securing leadership engagement, and continuously adapting strategies—all of which are evidenced by the Conquest Programme's positive outcomes and offer a replicable model for broader U.S. healthcare reform.
PRagmatic EVAluation of an Improvement program for people Living with modifiable high-risk COPD (PREVAIL) vs usual care Hickman K et al *JCOPDF* Full Publication Slide Deck	**Aim:** To evaluate, via cluster-randomized trials in the UK and the US, whether implementation of the CONQUEST quality-improvement program in primary care can better identify "modifiable high-risk" COPD patients (both diagnosed and undiagnosed) and improve outcomes—specifically reducing exacerbation rates and major adverse cardiac or respiratory events—compared to usual care. **Conclusion:** concludes that the forthcoming PREVAIL pragmatic CRTs—powered to compare CONQUEST versus usual care over 24 months—will be the first to determine whether systematic identification and guideline-driven management of modifiable high-risk COPD in real-world primary care can lead to meaningful reductions in exacerbations and MACREs
International Severe Asthma Registry (ISAR) – 2017-2024 Status and Progress Update Larenas-Linnemann et al *Tuberc Respir Dis (Seoul)* Full Publication	**Aim:** To provide an update on ISAR between 2017-2024, and an overview of ISAR's research achievements and quality improvement initiatives. **Conclusion:** ISAR has recruited >35,000 patients from 28 countries, and its research has informed asthma management. ISAR conducted a Delphi study in 2024 to refine its variables. Its quality improvement initiatives help optimize data quality and reduce steroid burden.
Real-World Biologic Use Patterns in Severe Asthma, 2015–2021: The CLEAR Study Tran T et al *Prag Obs Res* Full Publication Slide Deck	**Aim:** To assess real-world biologic use patterns and associated clinical outcomes in patients receiving care for severe asthma. **Conclusion:** Switching or stopping biologic therapy was associated with worse clinical outcomes than continuing the initial therapy.
Patterns of Care in the Management of High-Risk COPD in Australia (2015-2019): An Observational Study for the CONQUEST Quality Improvement Program Jenkins C et al *Lancet Reg Health West Pac* Full Publication Slide Deck	**Aim:** To describe how high-risk COPD patients—newly diagnosed, already diagnosed, or potentially undiagnosed—were managed in Australia from 2015 to 2019, assessing adherence to national/international guidelines and CONQUEST quality standards **Conclusion:** In 2019, over 11% of COPD patients were classified as high-risk, yet substantial care gaps were evident—most lacked lung function testing or proper inhaled treatments, and access to smoking cessation and pulmonary rehabilitation was limited—indicating a strong need to align practice with evidence-based CONQUEST standards .

MID-YEAR PUBLICATIONS ROUND-UP

PUBLICATION	SUMMARY
Prevention of cardiovascular and other systemic adverse outcomes in asthma patients treated with biologics (SOLAR II) Sadatsafavi M et al *Am J Respir Crit Care Med* Full Publication Slide Deck	**Aim:** To compare the risk of developing new-onset OCS-related adverse outcomes between biologic-initiators and non-initiators. **Conclusion:** Our findings highlight the role for biologics in preventing new-onset OCS-related adverse outcomes in patients with severe asthma.
Impact of biologic initiation on oral corticosteroid use in the International Severe Asthma Registry and the Optimum Patient Care Research Database: a pooled analysis of real-world evidence (SOLAR I) Chen W et al *J Allergy Clin Immunol Pract* Full Publication Slide Deck	**Aim:** To estimate the efficacy of biologic initiation on total OCS (TOCS) exposure in SA patients from real-world specialist and primary care settings. **Conclusion:** Biologic initiation in SA patients led to substantial reduction in TOCS exposure, in particular in the first year. Future analyses will explore the impact on OCS-related adverse health events.
Poor agreement among asthma specialists on the choice and timing of initiation of a biologic treatment for severe asthma patients. (CHOIX BIO) Côté A et al *ERJ Open Research* Full Publication	**Aim:** To evaluate inter-observer agreement on the choice of biologic therapy in severe asthma patients among severe asthma specialists, based on clinical cases. **Conclusion:** The inter-observer agreement among asthma specialists in both the decision to initiate a biological treatment in patients with severe asthma and in the selection of treatment is weak. These results highlight the need for studies seeking reliable predictors for optimal response to biological therapies.
The real world impact of Glucagon-like peptide 1 receptor agonists on asthma control in people with obesity and high-risk asthma Kaplan A et al *Adv Ther* Full Publication	**Aim:** To evaluate, using real-world data from the Optimum Patient Care Research Database, whether treatment with glucagon-like peptide-1 receptor agonists (GLP-1 RAs) in adults with obesity and high-risk asthma improves asthma control compared to matched controls without GLP-1 RA exposure. **Conclusion:** GLP-1 RA therapy in obese individuals with asthma was associated with greater weight loss and significantly better asthma control—both in risk-domain and overall control—suggesting these drugs may offer dual benefits in managing comorbid obesity and asthma
Biomarker profile and disease burden associated with intermittent and long-term oral corticosteroid use in patients with severe asthma prior to biologic initiation in real-life (STAR) Schleich F et al *World Allergy Organization J* Full Publication Slide Deck	**Aim:** To explore the effect of OCS use (both intermittent [iOCS] and long-term [LTOCS]) prior to biologic initiation on SA phenotype and biomarker profile in real-life and to characterize the burden of SA among patients prescribed LTOCS by biomarker profile. **Conclusion:** OCS, whether prescribed intermittently or long-term, affect BEC distribution. Disease burden was high for those in the LTOCS group irrespective of BEC, suggesting that biologic access criteria should consider LTOCS users with low BEC.

MID-YEAR PUBLICATIONS ROUND-UP

PUBLICATION	SUMMARY
Systemic corticosteroid dose-response effects in asthma: an observational cohort study Xu X et al *ERJ Open Research* Full Publication	**Aim:** To investigate, using a large observational cohort, how varying levels of systemic corticosteroid (SCS) exposure in asthma patients relate to adverse outcomes and mortality, assessing if there's a dose–response relationship with average daily and cumulative SCS doses. **Conclusion:** Higher cumulative and daily SCS doses were linked to significantly increased all-cause mortality in a dose-dependent manner—patients with ≥10 g prednisolone-equivalent had over twice the risk of death, while those averaging ≥7.5 mg/day faced a 4.6-fold higher risk—highlighting the urgent need to re-evaluate SCS use in asthma management.
Incidence and survival of interstitial lung diseases in the UK in 2010–2019 Gonnelli F et al *ERJ Open Research* Full Publication	**Aim:** The primary aim of the study was to provide contemporary estimates of the incidence and survival of idiopathic pulmonary fibrosis (IPF), hypersensitivity pneumonitis (HP), and other interstitial lung diseases (ILDs) in the UK. **Conclusion:** The study concluded that interstitial lung diseases impose a significant burden on the UK healthcare system, with over 20,000 new cases diagnosed annually.
Predicting risk of morbidities associated with oral corticosteroid prescription for asthma Stanley B et al *Prag Obs Res* Full Publication	**Aim:** The study aimed to analyse independent risk factors and longitudinal changes in oral corticosteroid (OCS) use among adults with asthma—using UK primary care data—to predict the future risk of OCS-related morbidities. **Conclusion:** The models showed that higher projected OCS exposure significantly increased the risk of multiple adverse outcomes (e.g., diabetes, osteoporosis, hypertension, pneumonia), supporting the need for early strategies to reduce OCS use in asthma management.
Prediction Pathway for Severe Asthma Exacerbations Yadav CP et al *CHEST* Full Publication	**Aim:** The study explores how clinically relevant predictors interact to influence the risk of future severe exacerbations in patients with severe asthma using a Bayesian network approach. **Conclusion:** The study identified key pathways influencing the risk of future severe asthma exacerbations, particularly the roles of blood eosinophil count, FeNO, FEV_1, and chronic rhinosinusitis. Macrolide use also contributed to exacerbation risk. These insights support more informed, shared decision-making in severe asthma management.

*More information on our Publications is available on the OPRI website **here**.*

OPRI FACULTY NEWS

Laura Williams

Senior PA & Event Manager

Operations

@Laura Williams on LinkedIn

When I first joined OPRI, I had no prior experience in personal assistance or events management. I'm incredibly grateful for the opportunity to grow into the role, take on new challenges, and eventually expand it to include organising events. Adjusting to life in Singapore wasn't easy at first, but this role has been instrumental in helping me develop both professionally and personally.

A few highlights over the years include successfully coordinating the logistics for company events and key meetings at major international conferences such as ERS, REG, and ATS. One of the most rewarding parts of the job has been the opportunity to travel, attend these events, and connect with our wider global team and clients — truly inspiring individuals who've made the experience all the more memorable.

Fabio Botini

Junior Systems Analyst

Data Analytics

Over the past five years at OPC Australia, I've had the chance to grow both professionally and personally while contributing to a range of areas across the business — from recruitment and marketing to IT support.

I've helped recruit medical practices nationwide, building strong relationships with GPs and practice managers to encourage participation in our national audits. In marketing, I've supported outreach efforts by helping to create and manage campaigns, email communications, and promotional materials that raised awareness and strengthened engagement.

With a background in tech, I've also played an active role in supporting IT initiatives and improving internal systems, streamlining processes to make it easier for practices to take part in our programs.

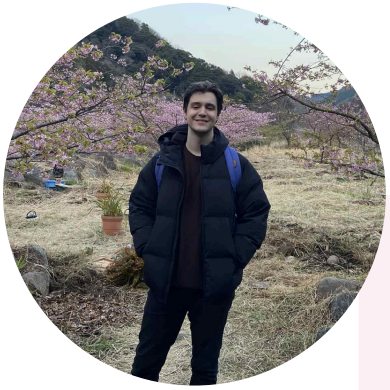
@Fabio Botini on LinkedIn

OPRI FACULTY NEWS

Alexander Roussos

Business Manager

Research



Five years ago, I joined the team at OPC—initially part-time while completing my undergraduate studies—and I'm incredibly grateful for the opportunities to learn and grow since then. I've worked across both global and Australian projects, gaining valuable experience and being encouraged to explore my interests within the business.

Over the years, I've had the pleasure of contributing to the establishment of the APEX in COPD Registry, as well as supporting several Australian initiatives. These have ranged from characterising the Australian asthma population, to exploring the unique local environment around SABA use in asthma, to identifying opportunities for improving COPD management in primary care.

It has been rewarding to play a role in our vision of using real-world data to drive real-world impact and I forward to continuing our efforts to improve patient care.

Carole Andrews

Global HR Manager

Operations

A decade into my HR career with OPRI and I am proud to have seen the company grow and thrive throughout this time. I feel privileged to support our Directors and talented teams to achieve our vision of improving the lives of patients through research.

When I joined our network of organisations back in 2015 I had just returned from maternity leave, OPRI offered me the opportunity to professionally develop and grow to the position of Global HR Manager, with the support of a fantastic HR team in Singapore and Cambridge, UK. In 2023 I completed a Masters in HR Management and this year I have become a Chartered Fellow of the CIPD. This reflects 20+ years of experience in HR! Workplaces constantly evolve and grow with ever changing demands, both within the organisation and externally. It is great to keep reacting and working with our teams to find new ways for us to flourish.

My role now spans all organisations with our network of companies; OPRI UK and SG, OPC UK, OPC Global and OPC Australia. I enjoy bringing our global teams together, we really do have exceptional teams across the world and I look forward to working with them for many more years to come!

@Carole Andrews on LinkedIn

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