DECEMBER 2023

ISAR NEWSLETTER

ISAR: INTERNATIONAL SEVERE ASTHMA REGISTRY

AN INTERNATIONAL COLLABORATION TO IMPROVE THE LIVES OF SEVERE ASTHMA PATIENTS WORLDWIDE

IMPACT AND FUTURE OF ISAR

IMPACT OF ISAR

Prior to ISAR, there was a lack of standardised data collection across regional or country-specific registries. ISAR therefore led a Delphi study in which severe asthma experts globally determined a core list of variables for data collection. **By pooling standardised data across countries, ISAR provides the statistical power needed for severe asthma research.**

*Data correct as of November 2023

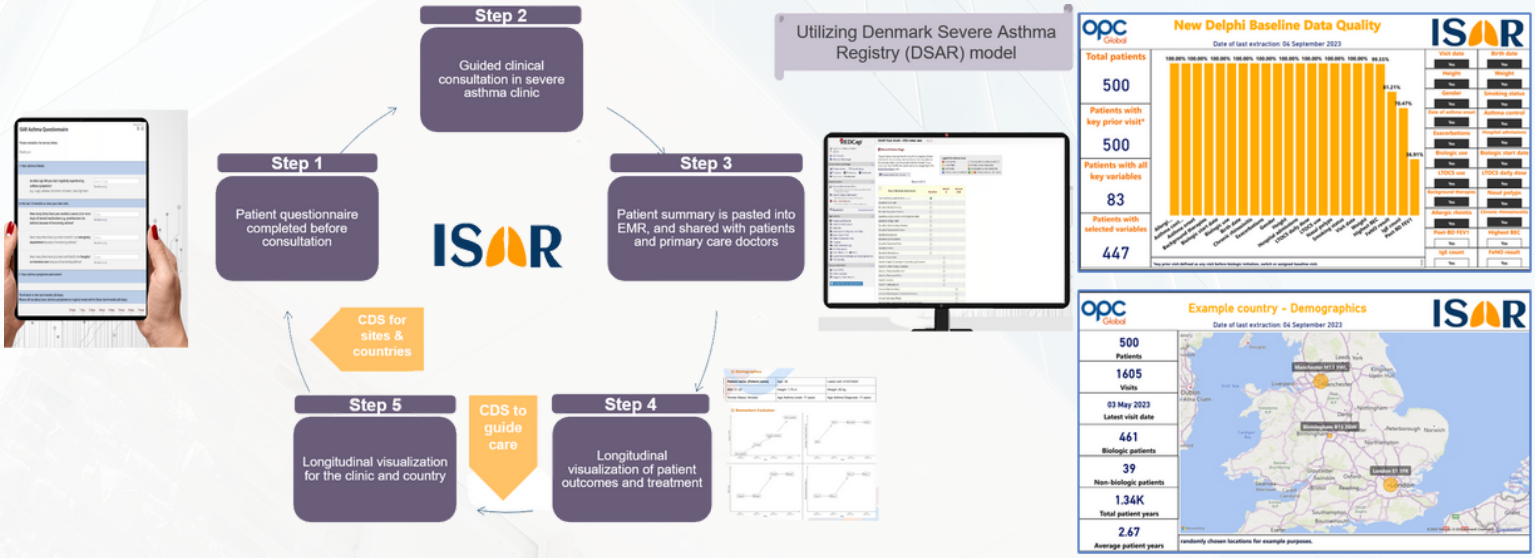
Bulathsinhala L, et al. J Allergy Clin Immunol Pract 2019; 7(2): 578-588.e2; Canonica GW, Price DB et al. CHEST 2020;157(4):805-814; FitzGerald JM, et al. BMC Med Res Methodol. 2020;20:212

FUTURE OF ISAR - POST 2023

We are delighted to announce that a 3 year extension for ISAR has been achieved (2024-2026).
We would like to thank AstraZeneca for their continued support; and all of our collaborating countries for their valuable contributions that have made this achievement possible.

ISAR's new quality improvement (QI) tool QISAR launching in 2024 will harmonize research data collection with clinical consultations that will have the impact of making severe asthma consultations more effective.

The ISAR REDCap QI tool will **minimize dual data entry by embedding data collection in clinical care**, as inspired by the Denmark Severe Asthma Registry (DSAR) model. The tool will also provide **LIVE, interactive, longitudinal feedback to clinicians and patients**, as facilitated by OPC QI initiatives.



ISAR PUBLICATIONS AND ABSTRACTS IN 2023

More information on our Publications is available on the ISAR website **here**

PUBLICATION	SUMMARY
Pfeffer, P et al. "The comparative effectiveness of Anti-IL5 and Anti-IgE biologic classes in severe asthma patients eligible for both" Allergy, 2023 **Full Article**	**Aim**: To describe severe asthma patients eligible for both Anti-IL5/5R and Anti-IgE, and to compare the effectiveness of both biologic classes in real life. **Conclusions**: In real life, both Anti-IL5/5R and Anti-IgE improve asthma outcomes; Anti-IL5/5R was more effective than Anti-IgE in reducing asthma exacerbations and long-term OCS use in patients eligible for both.
Scelo et al. "Association between T2-related comorbidities and effectiveness of biologics in adult patients from the ISAR (PRISM II)" *Am J Respir Crit Care Med, In press*	**Aim**: To determine the association between T2-related comorbidities and effectiveness of biologics in adult patients with severe asthma. **Conclusions**: Biologics led to improvements in all four asthma outcomes irrespective of comorbidity status. Comorbid CRS+/-NP associated with 23% fewer exacerbations, 59% higher odds of better post-biologic control, independent of biomarker profile. AR and AD not predictive of treatment effect. The study highlights the need for systematic evaluation for comorbidities and indicates the presence of T2-related comorbidities, in particular CRS +/- NP, could be used as a predictor of higher biologic effectiveness.
Cushen, B. et al. "Adult Severe Asthma Registries: A Global and Growing Inventory" Pragmat Obs Res. 2023 **Full Article**	**Aim**: To examine data that ISAR and non-ISAR countries report collecting that enable global research and support individual country interests **Conclusions**: Core variables resulting from ISAR's Delphi study were found to be collected to >90% in the majority of severe asthma registries. This standardisation of data collection across registries enables data interoperability across the world and enhances statistical power of research conducted. The paper also highlights the utility of collecting individual country variables alongside standardized variables to support targeting for specific additional research questions.
Scelo et al. "Analysis of comorbidities and multimorbidity in adult patients in the International Severe Asthma Registry" (PRISM I) Ann Allergy Asthma Immunol, 2023 **Full Article**	**Aim**: To understand the prevalence and pattern of comorbidities and multimorbidity in adults with severe asthma and their association with asthma-related outcomes. **Conclusions**: In a global study, comorbidity or multimorbidity is reported in most adults with severe asthma and is associated with poorer asthma-related outcomes.
Chen, W. et al, et al. "Impact of Initiating Biologics in Patients With Severe Asthma on Long-Term Oral Corticosteroids or Frequent Rescue Steroids (GLITTER II): Data From the International Severe Asthma Registry " Allergy Clin Immunol Pract 2023 **Full Article**	**Aim**: To examine the effectiveness of initiating biologics in a large, real-world cohort of adult patients with severe asthma and high oral corticosteroid exposure (HOCS). **Conclusions**: Within an environment of clinical improvement, initiation of biologics was associated with further improvements across multiple asthma outcomes, including exacerbation rate, OCS exposure, and health care resource utilization.

For more information on our Abstracts, Posters and Oral presentations, please visit the ISAR website **here**.

ABSTRACT/ POSTER SUMMARY

ERS, MILAN, 9 - 13 SEPTEMBER 2023

Clinical remission following biologic initiation in severe asthma: results of the International Severe Asthma Registry (FULL BEAM I) Scelo G, et al.
Abstract, Poster

Aim: To explore different definitions of remission using multiple asthma outcome domains, and to quantify the prevalence of remission when treated with biologics using these definitions in adults with severe asthma.

Conclusions:
- Almost 1 in 5 adults with severe asthma met criteria for clinical remission in all 4 domains 1 year following biologic initiation
- These results may be useful in informing physicians of the likelihood of remission
- Identification of a continuum of remission according to type and number of domains highlights the need for a universal approach to assess remission

Real world biologic treatment response in severe asthma: an analysis of the International Severe Asthma Registry (FULL BEAM II) Le T. T, et al.
Abstract, Poster

Aim: To investigate single- and multiple-domain biologic responder definitions in adults with severe asthma and quantify responders ~1 year post-biologic according to these definitions.

Conclusions:
- A spectrum of biologic responders identified, ranging from 11-80% depending upon type and number of domains used to define response
- Biologic effectiveness is evidenced as a large proportion of patients achieved response in at least one endpoint
- Findings highlight the need for a common language and definition of response to facilitate cross-study comparisons and inform guidelines

Characteristics associated with clinical remission in patients with severe asthma who initiate biologics (FULL BEAM III) Pérez De Llano L, et al.
Abstract, Poster

Aim: To explore factors associated with different definitions of asthma remission at ~1 year post biologic initiation in adults with severe asthma

Conclusions:
- Initiating biologics earlier in the disease history, before the development of severe impairments, is associated with an increased likelihood of clinical remission following biologic initiation

Real-world associations between baseline biomarkers and clinical outcomes in severe asthma patients treated with biologics (IGNITE) Townend J, et al.
Abstract, Poster

Aim: To determine if pre-biologic measurements of biomarkers (blood eosinophil count [BEC], fractional exhaled nitric oxide [FeNO] and total immunoglobulin-E [IgE]) were associated with clinical outcomes in severe asthma patients following treatment with anti–IL-5/5R, anti–IL-4Rα or anti-IgE biologics in real-world settings.

Conclusions:
- Results support the use of BEC and FeNO to help identify patients who will benefit most from biologics in real-world clinical practice
- A combination of BEC and FeNO predicted follow-up FEV 1 improvement more accurately than either alone ($p<0.01$)

ATS, WASHINGTON, 19 – 24 MAY 2023

Biologic responders and super-responders in the International Severe Asthma Registry (LUMINANT) Denton E, et al.
Abstract

Aim: To describe an international, real-world population who initiate biologic medications and to explore response and super-response across four individual asthma outcomes. Patients not initiating biologics were also examined for comparison.

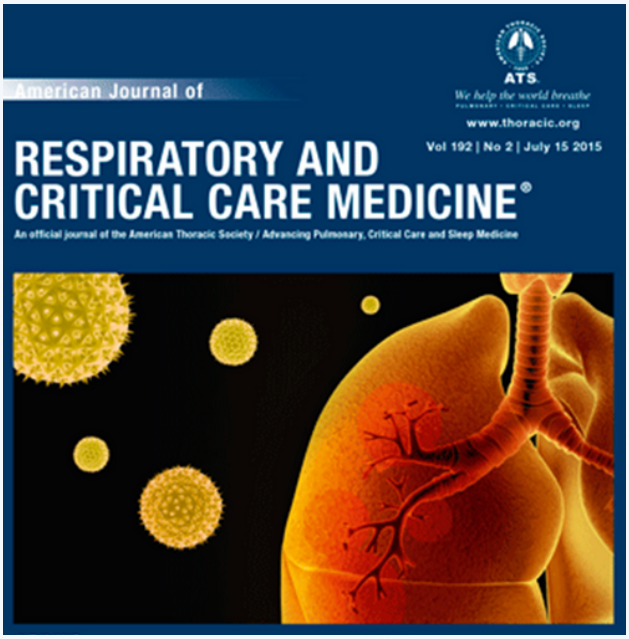
Conclusions:
- Patients with severe asthma who initiated biologics had greater disease severity at baseline than those who did not initiate biologics, but biomarker levels were similar
- Clinical response and super-response to biologics was observed in all four domains
- Super-response was more frequent amongst biologic initiators than non-initiators
- In the context of differing baseline impairment, response to biologics may differ by biologic class

Association between T2-related comorbidities and effectiveness of biologics in adult patients from the International Severe Asthma Registry (PRISM Objective 3), Scelo G, et al. Abstract

Aim: To determine the association between T2-related comorbidities and effectiveness of biologics in adult patients with severe asthma.

Conclusions:
- Patients with severe asthma with a T2, upper airway-related comorbidity benefit from biologic therapy to a greater extent than patients without
- Results highlight the importance of systemic evaluation for comorbidities and a multidisciplinary approach to their management in patients with severe asthma

ISAR IN THE SPOTLIGHT



PUBLICATION TO THE BLUE JOURNAL

ISAR is proud to announce that 'Association between T2-related comorbidities and effectiveness of biologics in adult patients from the International Severe Asthma Registry', PRISM II, is soon to be published in the highly esteemed American Journal of Respiratory and Critical Care Medicine (AJRCCM).

FEATURE ON THE AAAAI WEBSITE

The ISAR project on asthma phenotyping in primary care, which applies the ISAR eosinophil phenotype algorithm (**Asthma Phenotyping in Primary Care: Applying the International Severe Asthma Registry Eosinophil Phenotype Algorithm Across All Asthma Severities, *J Allergy Clin Immunol Pract 2021***) across all asthma severities, is highlighted in **the Latest Research section of the AAAAI website**. The full study can be accessed here.

TOP DOWNLOADED PAPER OF CHEST

With over **16, 000 downloads** as of 28 February 2023, the ISAR publication **Eosinophilic and Noneosinophilic Asthma, An Expert Consensus Framework to Characterize Phenotypes in a Global Real-life Severe Asthma Cohort**, was the TOP downloaded paper on journal.chestnet.org and ScienceDirect in 2021!

This study was also presented at the "Best of CHEST Journal - Asthma and COPD" Session at the CHEST 2022 conference on 16 October in Nashville. The full article can be accessed **here**.

ISAR EVENTS 2023

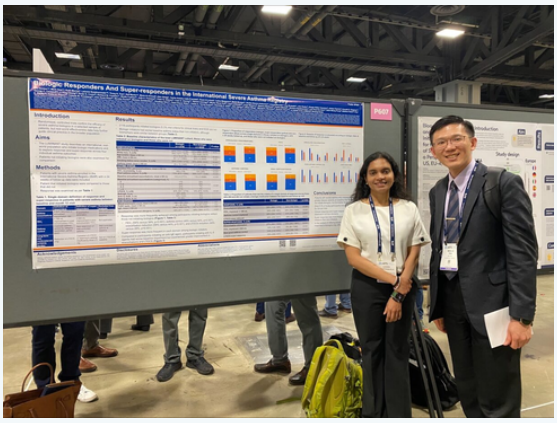
AMERICAN THORACIC SOCIETY (ATS) CONFERENCE 2023

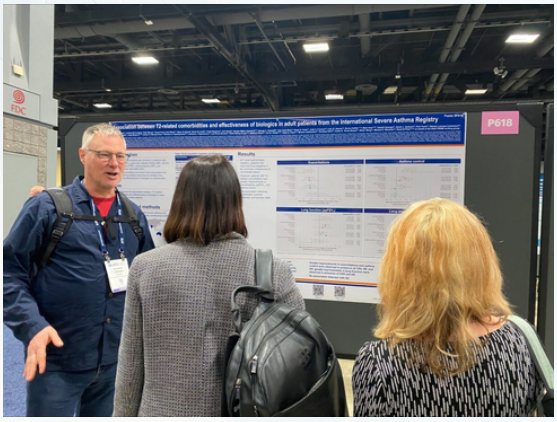
2 ISAR presentations

4 country meetings

30 collaborators from

15 countries attended the Research Dinner Meeting





KEY MESSAGES

ISAR's growth and impact
ISAR's global reach with impact at international events was celebrated, including discussing key challenges and future direction in severe and high risk asthma at the Severe Asthma Summit in Copenhagen. Research carried out at country level through ISAR was highlighted.

Delphi Round 2: Defining and refining critical variables for research in severe asthma
The latest results from the Delphi exercise were discussed with international experts in severe asthma, enabling collection of variables that facilitate research and impact patient care.

Research that drives change
Research break out groups discussed proposals that could steer new courses in severe and high risk asthma care including understanding remission, the impact of biologics to use of oral and inhaled corticosteroids and whether earlier intervention may help achieve remission in asthma.

EUROPEAN RESPIRATORY SOCIETY (ERS) INTERNATIONAL CONGRESS 2023

9 - 13 September 2023
Milan, Italy

>50 collaborators from

25 countries

1 ISAR collaborator dinner

11 country meetings

4 ISAR posters presented

2 working group sessions (QI Subcommittee and Research WG SOLAR)

KEY MESSAGES

ISAR's achievements (as of September 2023)

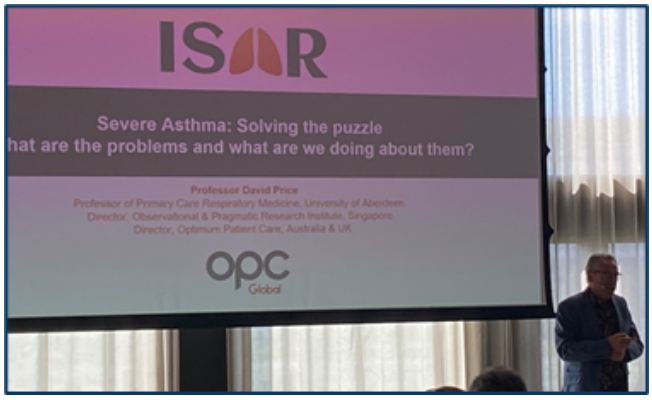
ISAR has exceeded targets in **country and patient recruitment** (>18,000 patients from 26 countries with prospective and retrospective data) and **research** (23 projects, 14 publications and 40 abstracts and posters).

Future of ISAR: QISAR

The QI Subcommittee working group session facilitated advancement in plans for the new integrated **ISAR QI redcap platform QISAR.** The new platform (demonstrated in real-time at ERS) streamlines and improves data entry in addition to providing QI support, powering change in clinical thinking and asthma outcomes through research and at the clinic.

Variables that meet the changing needs of research

After five years of project experience, a modified Delphi process gathered input from the ISAR Steering Committee—a panel of high-risk asthma experts—to reassess collected variables. Refining a key research variable list from core variables was prioritised, for ongoing collection to ISAR in the extension phase.



SEVERE ASTHMA SUMMIT 2023

April 2023
Copenhagen, Denmark

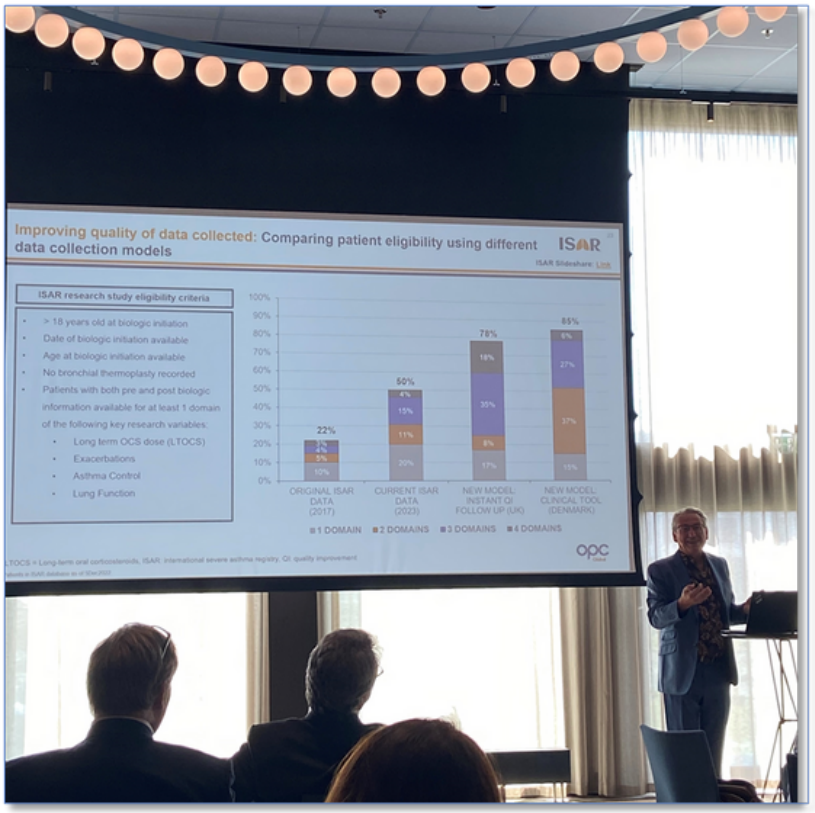
Severe asthma consortia: how to reach goals

Professor Price draws attention to the problems in severe asthma care and how ISAR's research and international collaboration paves the way to solving these.
Working together, the severe asthma consortia discussed key challenges and future directions including:

-When ICS and LABA are no longer enough to target T2 mediated disease: a need for early intervention?

-Defining High Risk Asthma: Who is at risk and how can care be optimized?

- Severe asthma
- Difficult to treat asthma
- Those at risk of exacerbations with milder disease at point of assessment
- Those at risk of lung function decline
- Those at risk of steroid related adverse events based on OCS risk calculator



WORLD CONGRESS OF ASTHMA 2023

July 8-10 2023
Vancouver, Canada

Global Asthma Association - INTERASMA since 1954
XXVI World Congress of Asthma
"In memoriam of Prof. Mark Fitzgerald"

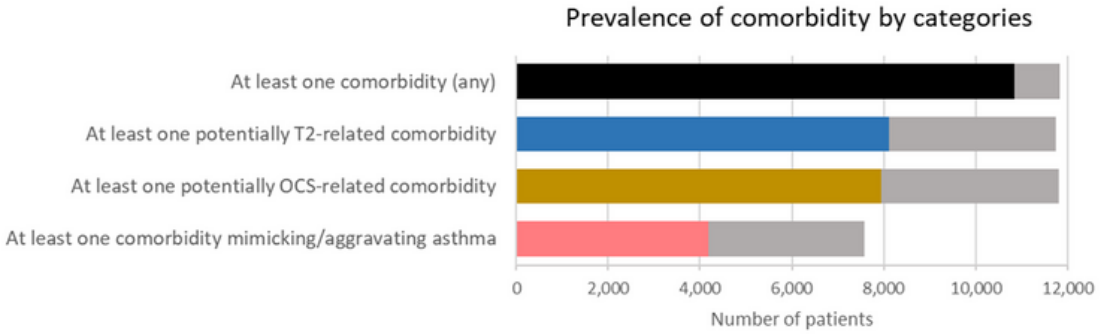
Dr Andréanne Côté presents the ISAR mission, impact and research that changes clinical thinking at the WCA

ISAR PRESENTS AT DSAR (DANISH SEVERE ASTHMA REGISTRY) ANNUAL MEETING

29-30 September 2023
Copenhagen, Denmark

Dr Ghislaine Scelo, senior epidemiologist, presents 'Collaborating to improve management of severe asthma – Research highlights from ISAR'.

Following an overview of ISAR, work undertaken in the subject of comorbidities and multimorbidity in severe asthma patients was showcased. Subsequently, the power of biologics to improve outcomes in patients with T2 comorbidities, PRISM II data, was highlighted. The progress towards improved data collection in the clinical setting utilising the ISAR clinical e-tool, was additionally featured.



GCC SEVERE ASTHMA SUMMIT 2023

24-25th November 2023

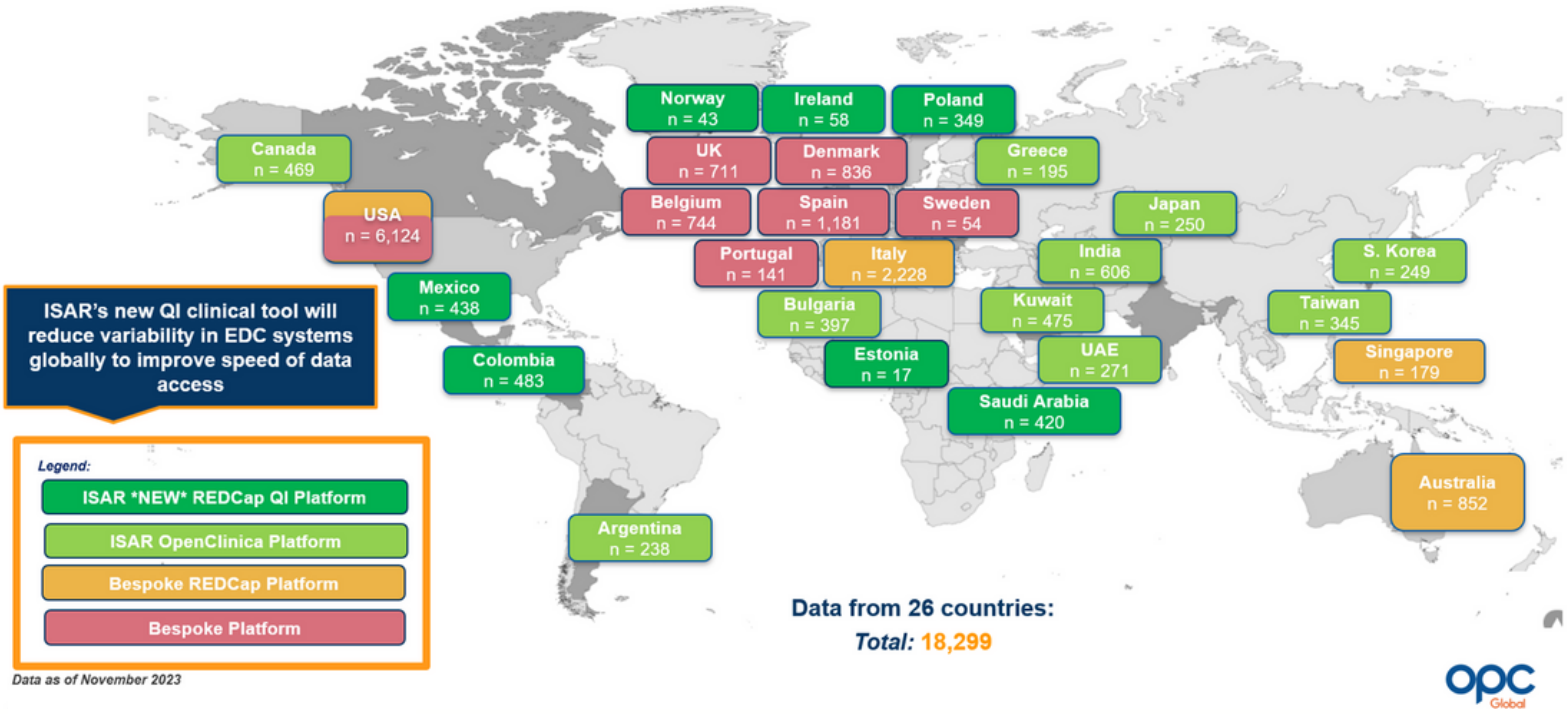
Professor Price brings to light new ISAR evidence regarding response (LUMINANT) and clinical remission following biologic initiation, how earlier intervention is critical in progression to this goal (FULL BEAM), and the current landscape in OCS stewardship.

ASIAN PACIFIC SOCIETY OF RESPIROLOGY (APSR) 2023

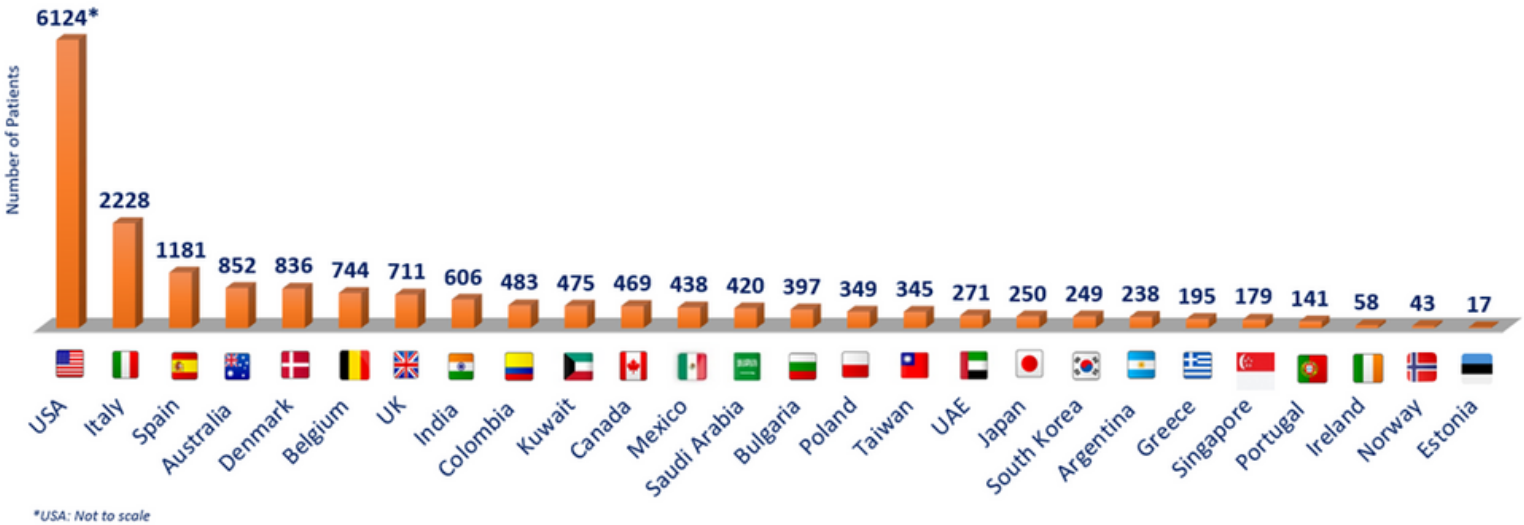
16-19 November 2023
Singapore

Prof David Price presents: ISAR - Real-World Evidence on Severe Asthma at APSR. The importance of preventing progression to severe asthma and the future of severe asthma care was explored.

ISAR COUNTRY UPDATES



The International Severe Asthma Registry (ISAR) marches on into its 6th year with data from 18,299 severe asthma patients from our 26 collaborating countries. The **ISAR network continues to grow with the exciting addition of collaborators in Brazil and Michigan USA.**



ISAR Patient Recruitment Numbers: Data as of November 2023

ISAR PUBLICATIONS, KEY MESSAGES AND CLINICAL IMPLICATIONS

STUDY/ PUBLICATION	KEY MESSAGE	CLINICAL IMPLICATIONS
DELPHI: Development of ISAR: A modified Delphi study **Full Article**	For the first time, severe asthma experts globally agreed on key variables that should be collected for severe asthma.	Standardization of variables improves data collection and prompts the clinical assessment of key variables in severe asthma.
ISAR MISSION STATEMENT **Full Article**	ISAR's mission is to achieve global reach, standardize variables, ensure ethical and clinically appropriate research, and disseminate findings.	By pooling data across registries globally, ISAR provides sufficient statistical power to generate new knowledge in severe asthma.
BRISAR: Cluster analysis of inflammatory biomarker expression in ISAR **Full article**	Biomarker-derived clusters exhibited unique clinical characteristics, suggesting discrete patterns of inflammatory pathway activation.	Understanding discrete patterns of inflammatory pathway activation enables clinicians to tailor targeted therapies such as biologics.
LUNG FUNCTION: Asthma exacerbations are associated with a decline in lung function **Full Article**	Exacerbations accelerate lung function decline in asthma patients, which is more pronounced in younger patients.	Clinicians should assess lung function and consider interventions such as biologics that have been shown to reduce exacerbations.
Potential Severe Asthma Hidden in UK Primary Care **Full article**	Although ~8% of asthma patients in primary care had potentially hidden severe asthma, only ¼ were referred to respiratory specialists.	There is raised clinical awareness that patients with potentially HSA are currently under-referred.
Eosinophilic and Noneosinophilic Asthma **Full article**	The ISAR gradient algorithm showed the predominance of the eosinophilic asthma phenotype. This influenced a change in GINA guidelines.	Clinicians can use routinely available variables to assess patients' asthma phenotypes and identify patients suitable for biologic therapy.
SUNNIE: Real World Biologic Use and Switch Pattern in Severe Asthma: Data from ISAR and the US CHRONICLE Study **Full article**	Among patients receiving their first biologic, 79% continued treatment, 10% stopped and 11% switched. There is potential biologic under-switching.	Clinicians should consider switching biologics in patients who show limited response to their first biologic.

STUDY/ PUBLICATION	KEY MESSAGE	CLINICAL IMPLICATIONS
GLITTER I: Characterization of Patients in the International Severe Asthma Registry with High Steroid Exposure Who Did or Did Not Initiate Biologic Therapy **Full article**	Around one third of severe asthma patients with high steroid exposure did not receive biologics despite a similar high burden of asthma exacerbations as those who initiated a biologic therapy	Findings highlight the need to consider multiple characteristics to guide the initiation of biologics in severe asthma patients
BACS: Global Variability in Administrative Approval Prescription Criteria for Biologic Therapy in Severe Asthma **Full article**	There was wide variation in severe asthma biologic accessibility globally, because of differences in biologic prescription and licensing criteria.	Policy-makers should advocate for improved biologic accessibility. Biologic prescription and access criteria should be standardized globally.
RADIANT: Impact of Socioeconomic Status on Adult Patients with Asthma: A Population-Based Cohort Study from UK Primary Care **Full article**	Most deprived patients had poorer asthma outcomes than least deprived patients, yet respiratory referral rates were comparable.	Socioeconomically deprived patients have greater need for specialist reviews and targeted treatments like biologics.
FIRE: Comparative Effectiveness of Anti-IL5/5R Versus Anti-IgE in Patients Eligible for Both **Full Article**	Anti-IL5/5R was more effective than Anti-IgE in reducing exacerbations and LTOCS use, among patients eligible for both.	Anti-IL5/5R should be promoted over Anti-IgE in patients eligible for both. This entails appropriate biologic selection.
Characterization of Severe Asthma Worldwide: Data From the International Severe Asthma Registry **Full Article**	High OCS use and fixed airways obstruction are a global problem. The heterogeneity of patients' clinical characteristics within registries and across countries provides research opportunities.	The burden of exacerbations and OCS use (damaged lungs and bodies) needs to be reduced in patients with severe asthma.
PRISM: Impact of comorbidity in severe asthma patients **Full Article**	There is high comorbidity burden. OCS-related comorbidities were associated with more exacerbations (damaged lungs and bodies).	Clinicians should proactively assess for OCS-related comorbidities and consider steroid-sparing biologics.

STUDY/ PUBLICATION	KEY MESSAGE	CLINICAL IMPLICATIONS
PRISM II: Association between T2-related comorbidities and effectiveness of biologics in severe asthma	T2 comorbidities predict response to biologics (reduced exacerbations and improved asthma control), particularly in Anti-IL5/5R patients.	Clinicians should assess for T2 comorbidities, and consider biologics for eligible patients.
LUMINANT: Clinical outcomes before and after biologic treatment	Bx initiators had reduced exacerbations and LTOCS use vs non-Bx users; Anti-IL5/5R patients showed greater improvements than Anti-IgE patients.	Anti-IL5/5R is the appropriate Bx for those eligible and on LTOCS as Anti-IL5/5R was the only predictor of LTOCS reduction response.
BEAM: Defining and characterizing biologic treatment responders in severe asthma patients	Exacerbations, LTOCS use and asthma control can assess response to Bx. Baseline status should be considered when assessing treatment response.	ISAR's goals are to help patients achieve clinical response, and to standardize the assessment of response to Bx globally.
EMBER: Characteristics and comorbidities associated with non-type 2 asthma	A predominantly female cluster with low biomarker levels was identified. Response to biologics is limited in the T2-low cluster.	Biomarker-defined clusters by level of T2 inflammatory involvement can inform treatment decisions.
IGNITE: Effectiveness of biologics in patients with different combinations of T2 biomarkers	Anti-IL5/5R therapy decreases BEC. Biomarker (BEC/FeNO) combinations predict response to Bx.	Clinicians can use T2 biomarker combinations to identify patients who would benefit from Bx.
CLEAR: Biologic patterns, clinical outcomes and health resource utilization **Full Article**	~40% of patients switched or stopped Bx; they had worse clinical outcomes and more HCRU than those who continued Bx.	It is important to select the right initial biologic for continual therapy.
FULL BEAM: Exploring composite definitions of responders and non-responders to biologics	Shorter asthma duration increased remission odds. Fewer pre-Bx impairments were positively associated with remission.	Clinicians should initiate Bx earlier in patients' asthma trajectory, to increase their likelihood of achieving clinical remission.
GLITTER II: Impact of Initiating Biologics in Patients with Severe Asthma and on Long-Term Oral Corticosteroids or Rescue Steroids **Full Article**	Biologic initiation reduced steroid use in patients with high OCS exposure; there is an unmet need to decrease OCS use in many patients.	Severe asthma services improve outcomes but clinical assessments and targets vary. Clinicians should be more aggressive in OCS tapering.

STUDY/ PUBLICATION	KEY MESSAGE	CLINICAL IMPLICATIONS
EVEREST: Patient characteristics, treatment patterns, clinical outcomes, and health care resource utilization in severe asthma subgroups **Abstract**	Substantial baseline disease burden is evident which reduced post-biologic, but remained high	Patients with severe asthma experience substantial disease burden and unmet need, including biologic users or those who were biologic eligible or ineligible. Proper management and additional therapy options are needed for this population
THE FOLLOWING STUDIES ARE ACTIVE PROJECTS IN INITIAL ANALYSIS STAGE		
SOLAR: Impact of biologic initiation on new-onset OCS-related health outcomes in severe asthma patients, analysis stage	Preliminary data demonstrates effectiveness of biologics to enable dose reduction or stopping of steroid use. Initial data for OCS-related health outcomes suggest lower incidence rates of conditions including diabetes, pneumonia and heart failure in biologic initiators.	Study is in analysis stage, however preliminary data highlights the utility of biologics in severe asthma management to reduce steroid burden and prevent OCS associated health outcomes. The study additionally underlines the need to actively monitor for development of OCS related outcomes.
PASS : Descriptive Study of the Incidence of Malignancy in Severe Asthma Patients Receiving Benralizumab and Other Therapies, a Post Authorization Safety Study (PASS), analysis stage	Data collection finalised, analysis stage. The study will assess for increased risk of new malignancy in patients receiving benralizumab compared to those receiving other-biologics or non-biologic therapy.	The PASS study will add to the existing evidence base available for biologic safety profiles including benralizumab and others. This will support clinicians and patients with decision making and utilising biologics in treatment plans for severe asthma.
PATH: Patterns of onset & associated phenotypes, manuscript outline initiated	Preliminary findings suggest the age of asthma onset distribution is bimodal in both primary and secondary care populations.	Initial findings highlight that asthma can present both early and late with phenotypical similarity across primary and secondary care. Patients should be appropriately investigated and treated according to equivalent standards in both settings.
STAR: Characteristics of type 2 asthma phenotypes and OCS use in ISAR, analysis stage	Long-term OCS users had significantly lower eosinophil count and greater prevalence of OCS-related comorbidities than patients who received intermittent or no OCS.	Results emphasize the need to reduce steroid burden in severe asthma patients, and for awareness of biomarker suppression associated with steroid use when considering suitability and eligibility for biologics

ISAR PUBLICATIONS AND ABSTRACTS IN 2022

More information on our Publications is available on the ISAR website **here**

PUBLICATION	SUMMARY
Price D and Uthaman T. "What have we learnt from real-life research in asthma and COPD? Standards and novel designs for the future" *Respirology, 2022* **Full Article** **Featured on the cover page of Respirology!** 	**Aim**: To highlight learnings from real-life research in asthma and COPD. **Conclusions**: Real-life research has high external validity (generalizability) and can answer research questions that may be unfeasible for randomized controlled trials. Real-world evidence in asthma and COPD influences clinical guidelines and sets quality standards for patient care.
Paoletti G, et al. "Biologics in Severe Asthma: Role of Real-World Evidence from Registries" *European Respiratory Review, 2022* **Full Article**	**Aim**: To summarise the current research on real-world evidence around the use of biologics in severe asthma. **Conclusions**: Registries such as ISAR provide "real-life" evidence for the effectiveness of biologics, enabling severe asthma physicians to tailor the right drugs to the right patients.
Soremekun S, et al. "Asthma Exacerbations are Associated with a decline in Lung Function: A Longitudinal Population-Based Study, *Thorax, 2022* **Full Article**	**Aim:** To test the hypothesis that exacerbation burden is associated with age-specific, long-term lung function trajectory in asthma. **Conclusions**: Asthma exacerbations were associated with faster lung function decline, which was more pronounced in younger patients.
Porsbjerg CM, et al. Global variability in administrative approval prescription criteria for biologic therapy in severe asthma, *J Allergy Clin Immunol Pract, 2022* **Full Article**	**Aim**: To compare global differences in ease-of-access to biologics. **Conclusions**: The Biologic ACcessibility Score (BACS) was developed based on biologic prescription criteria; it highlighted substantial variations in ease-of-access to biologics globally.
Menzies-Gow AN, et al. Real-world biologic use and switch patterns in severe asthma: data from the International Severe Asthma Registry and the US CHRONICLE Study, *J Asthma Allergy, 2022* **Full Article**	**Aim**: To describe real-life global patterns of biologic use for severe asthma, elucidate the reasons underlying these patterns, and examine patient-level factors. **Conclusions**: 79% of patients with severe asthma continue treatment with their initial biologic; of the 10.8% of patients who switched, the most common first switch was from omalizumab to an Anti-IL5/5R therapy.
Chen W, et al. Characterization of patients in the International Severe Asthma Registry with high steroid exposure who did or did not initiate biologic therapy, *J Asthma Allergy*, 2022 **Full Article**	**Aim**: To compare the characteristics of severe asthma patients with high oral corticosteroid exposure who did and did not initiate biologics. **Conclusions**: Biologic initiators were more likely to have higher blood eosinophil counts, serious infections, nasal polyps, airflow limitation and uncontrolled asthma versus non-biologic initiators.

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CHECK OUT THE NEW ISAR WEBSITE!

The ISAR website has had a facelift! It features the latest news on ISAR abstracts and publications- https://www.isar.opcglobal.org

JOIN US!

ISAR is keen to expand its network! **To register interest in joining the registry as a collaborating country, or to submit a research request or proposal for using ISAR data, please contact us at isar@optimumpatientcare.org**