



CENTRE OF EXCELLENCE IN  
**SEVERE ASTHMA**

*Innovative solutions for severe asthma*

## Centre of Excellence in Severe Asthma Newsletter (Volume 5 – March 2019)

Welcome to the fifth Centre of Excellence in Severe Asthma newsletter. Our newsletters provide updates on activities, personnel, upcoming events and developments relevant to severe asthma

### Newsletters:

Vol. 1 (Aug 2016): [click here](#) / Vol. 2 (Dec 2016): [click here](#) / Vol. 3 (July 2017): [click here](#)  
Vol. 4 (May 2018): [click here](#)

### Annual Reports:

2015 / 2016: [click here](#) / 2017: [click here](#)

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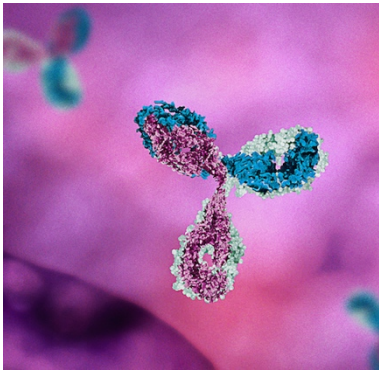
## Severe Asthma Toolkit - Update

The Severe Asthma Toolkit website was launched in March 2018, as a comprehensive and independent online resource, that gives clinicians the latest information to optimise care for patients with severe asthma.



- Over 10,000 users have accessed the website
- Endorsed by the Thoracic Society of Australia & New Zealand as an educational resource
- Ongoing content development underway

[TOOLKIT.SEVEREASTHMA.ORG.AU](http://TOOLKIT.SEVEREASTHMA.ORG.AU)



## Clinical Recommendation Documents

We have developed practical recommendation documents for monoclonal antibody treatments. Documents provide an overview of treatment, PBS eligibility criteria, enrolment processes, precautions/adverse effects and procedures for administration.

We have recently updated documents for omalizumab (Xolair) and mepolizumab (Nucala) to reflect new PBS requirements and released a document for benralizumab (Fasenra) in which was recently added to PBS coverage.

### Download from our website:

**Omalizumab:** <https://www.severeasthma.org.au/omalizumab/>

**Mepolizumab:** <https://www.severeasthma.org.au/mepolizumab/>

**Benralizumab:** <https://www.severeasthma.org.au/benralizumab/>

In some situations, the initiation and continued administration of monoclonal antibodies may be considered in primary care, provided specific conditions are met.

We have developed a recommendation document to support this approach.

### Initiation in Primary Care:

<https://www.severeasthma.org.au/initiation-in-primary-care/>



**Clinical Recommendations For The Use Of Mepolizumab In Severe Asthma**

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**About the treatment**

**Introduction**  
Mepolizumab (Nucala) is indicated as an add-on therapy for people with severe refractory eosinophilic asthma, aged ≥12 years.

**Mechanism of action**  
Mepolizumab is a humanised monoclonal antibody (IgG1, kappa), which targets human IL-5 with high affinity and specificity. IL-5 is the major cytokine responsible for the growth and differentiation, recruitment, activation and survival of eosinophils.

Mepolizumab inhibits the bioactivity of IL-5 with nanomolar potency by blocking the binding of IL-5 to the alpha chain of the IL-5 receptor complex expressed on the eosinophil cell surface, thereby inhibiting IL-5 signalling and reducing the production and survival of eosinophils.

## Past Webinars

Since our last newsletter, we have hosted six seminars on severe asthma. Whenever possible, we make recordings available on our website.

**Dr. Mario Castro – Severe Asthma Data in SARP**

**Prof. Frank Thien – Thunderstorm Asthma Update**

**Dr. Gang Wang – Australasian Severe Asthma Network (ASAN) in China and Beyond**

**A/Prof. David Langton – Bronchial Thermoplasty**

**Prof. Andrew Menzies-Gow – Optimising OCS Use in Severe Asthma in the Era of Biologic Agents**

**Obesity Management in Severe Asthma & Chronic Disease**

**Brigitte Borg & Prof. Greg King – Lung Function Assessment for Severe Asthma**

**Recorded Webinars are Available on our Website**

<http://www.severeasthma.org.au/tools-resources/past-webinars/>

## Upcoming Events

### Centre of Excellence Severe Asthma Seminar Series

We are pleased to announce 2 upcoming webinars scheduled in 2019

- 17 April **Severe Asthma in Paediatrics** by Dr. Louisa Owens.  
<https://www.severeasthma.org.au/paediatrics/>
- 13 June **Viral Infections & Asthma Exacerbations** by Prof. John Upham <https://www.severeasthma.org.au/virus-infections/>



### Unexplained Breathlessness Workshop

We will be hosting a full-day education programme on 04 April 2019. This education programme will focus on the current understanding, diagnosis, assessment and treatment of complex breathlessness.

We are pleased to announce international and local speakers including Dr. Stephen Fowler (The University of Manchester, UK), Dr. Tania Clifton-Smith (Breathing Works, New Zealand) and Dr. Rosalba Courtney (Breath and Body Clinic, Australia) will be part of the programme's faculty.

## Past Events



### Severe Asthma Expert Forum #3

On 14 November 2018, we hosted a panel of national and international experts in severe asthma management.

The forum focused on **“Implementation of new evidence into practice”**. This event built on previous forums on **“Diagnosis & assessment”** (Nov. 2015) and **“Management”** (Mar. 2017)

**The primary goals of the forums were to identify:**

1. Areas of consensus
2. Activities and resources required
3. Future research questions

Discussions from all 3 forums are currently being developed for publication.

### Themes:

- Diagnosis & assessment
- Models of care and treatment pathways
- Targeted treatment
- Patient perspective & empowerment

## Past Events

### Annual Research Meeting

On 24 October 2018, we hosted our annual research meeting at the Hunter Medical Research Institute in Newcastle.



The morning session featured Centre of Excellence trainee research updates, which showcased the diversity of research currently underway.



In the afternoon session, we convened a clinical trials workshop:

#### Clinical Trials Funding

Prof. Bruce Neal (George Institute of Global Health) provided tips:

- **Write for the money** – tailor your application to the grant opportunity and assessment criteria
- **Look for the easy road** – identify schemes with higher success rates, leverage income and make your own opportunities
- **Get pre-submission reviews** – seek feedback from successful academics, research managers and designers
- **Buy lots of raffle tickets** – tailor your application to multiple funding schemes over multiple year with different collaborators, until the project gets funded



#### Integrating Public Involvement

Prof. William Tarnow-Mordi (NHMRC Clinical Trials Centre) & Ms. Melinda Cruz (Miracle Babies Foundation) provided tips on how they have achieved authentic public participation through:

- **Involvement in trial design and research question generation**
- **Ongoing study support** for recruitment and retention
- Informing interventions
- **Supporting practical requirements** including study setup, maintenance and ethics applications
- **Inclusion in grant applications**
- **Co-authorship** of research outputs



#### Designing Implementation Trials

Prof. John Wiggers (Hunter New England Local Health District) shared his experience:

- Implementation is **multi-faceted**
- Implementation trials are necessary to **minimise translation delay** and **improve uptake of new evidence**
- Evidence is required to **inform practitioners and policymakers**
- **Key components** include the product / guideline, intervention approach and consideration of enablers and barriers





## Congratulations!! Prizes and Funding Announcements



**Daniela Eassey:** 1<sup>st</sup> prize Oral Presentation at the University of Sydney Pharmacy Annual Postgraduate Conference for her presentation “How do people living with severe asthma experience autonomy? An exploratory study”



**Severe Asthma Toolkit Project Team:** Recognised with the University of Newcastle Vice Chancellor’s Award for Collaboration Excellence, as well as the School of Nursing and Midwifery’s Collaboration and Engagement Excellence Award

We are pleased to announce the successful recipients of the 2019 Travel Grant Round, to support trainees to present their research at national and international conferences.

### Congratulations to all successful applicants!

#### Travel Grants

**Vanessa Clark:** *Driving Forces in Dyspnoea in Severe Asthma*

**Daniela Eassey:** *How do people living with severe asthma experience autonomy? An exploratory study*

**Michael Fricker:** *Mast cell-related biomarkers as predictors of airway inflammatory and exacerbation phenotype in asthma*

**Sarah Hiles:** *Treatable Traits that Predict Health Status Impairment and Treatment Response*

**Kim Jones:** *Prevalence of Severe Asthma: A Systematic Review*

**Natalie Niessen:** *Differential TNF, TNFR1 and TNFR2 expression on blood- and sputum-derived immune cells in asthma*

**Farid Sanai:** *Potential differences in calcium sensitisation driving human small airway smooth muscle contractility in obstructive disease*

**Katrina Tonga:** *Lung elastic recoil and acinar ventilation heterogeneity in older asthmatics with fixed airflow obstruction*

#### Meet Our Researchers

We have welcomed new scholars, including post-doctoral fellows and PhD scholars. Find out more about our trainees and investigators [here](#)



**Eleanor Majellano** graduated with a Master of Public Health at Curtin University in Perth supported by Endeavour Scholarships and Fellowships. She is currently a Ph.D. scholar under the supervision of Dr. Vanessa Clark and Professor Vanessa McDonald. Her research project focusses on determining the models of care for severe asthma.



**Michelle Stubbs** graduated with a Master of Nursing at The University of Technology Sydney supported by Edith Cavell Scholarships. She is currently a Ph.D. scholar under the supervision of Professor Vanessa McDonald and Dr. Vanessa Clark. Her research project is going to target anxiety and depression in severe asthma.

## Highlighted Recent Severe Asthma Publications

The Medical Journal of Australia recently published a supplement featuring Severe Asthma in Australia, edited by Profs. John Upham, Peter Gibson & Zoe Silverstone.

Access the supplement here:

<https://www.mja.com.au/journal/2018/209/2/supplement>

### Included articles:

- Diagnosis of severe asthma
- Managing comorbid conditions in severe asthma
- Appropriate use of oral corticosteroids for severe asthma
- Optimising treatment for severe asthma
- Health-related quality of life burden in severe asthma
- Models of care for severe asthma: the role of primary care

This feature also includes a podcast on severe asthma, by [Prof. Peter Gibson – click here](#)



## Additional Publications

- [Managing patients with severe asthma in Australia: Current challenges with the existing models of care.](#) Chung LP et al. 2018 *Internal Medicine Journal*
- [Dupilumab Efficacy and Safety in Moderate-to-Severe Uncontrolled Asthma.](#) Castro M et al. 2018. *New England Journal of Medicine.*
- [The 2016 Melbourne thunderstorm asthma epidemic: Risk factors for severe attacks requiring hospital admission.](#) Hew M et al. 2019. *Allergy.*
- [Can early intervention in pediatric asthma improve long-term outcomes? A question that needs an answer.](#) Lanz et al. 2019. *Pediatric Pulmonology.*
- [Lung elastic recoil and ventilation heterogeneity of diffusion-dependent airways in older people with asthma and fixed airflow obstruction.](#) Tonga KO et al. 2018. *European Respiratory Journal*
- [Treatable traits can be identified in a severe asthma registry and predict future exacerbations.](#) McDonald VM et al. 2019. *Respirology.*
- [A sputum 6 gene signature predicts future exacerbations of poorly controlled asthma.](#) Fricker et al. 2019. *Journal of Allergy & Clinical Immunology.*
- [Maternal history of miscarriages and measures of fertility in relation to childhood asthma.](#) Magnus et al. 2019. *Thorax.*
- [Working while unwell: Workplace impairment in people with severe asthma.](#) Hiles SA et al. 2018. *Clinical & Experimental Allergy.*

### Explore Our Website And Follow Us On Twitter!

Our website (<http://www.severeasthma.org.au>) is the best source of information on the Centre of Excellence in Severe Asthma. If you would like to receive updates on events, resources and research join our mailing list on our homepage and follow us on Twitter [@SevereAsthmaCRE](#).