

APRIL NEWSLETTER

Saskatchewan Respiratory Therapy Education Committee



Refractory Status Asthmaticus

THIS ISSUE WILL EXPLORE ADJUNCT THERAPIES AVAILABLE

- Asthma is a chronic airway disease characterized by bronchospasm, airway edema, and increased mucus production, which contribute to airflow limitation. Standard treatment involves β_2 -agonists and corticosteroids.
- Status asthmaticus is a severe, life-threatening asthma exacerbation that does not respond to initial standard therapies and requires urgent, aggressive management.
- IV β_2 -agonists may be considered. There is increased likelihood of systemic effects, including stimulation of β_1 receptors, which can lead to side effects such as tachycardia. The evidence supporting the routine use of IV β_2 -agonists is limited.
- Magnesium promotes smooth muscle relaxation by inhibiting calcium influx into cells. Evidence suggests magnesium is beneficial in moderate to severe exacerbations.
- Heliox is a mixture of helium and oxygen that has a lower density than air, which can improve airflow under turbulent conditions and reduce the work of breathing. Evidence for this treatment is weak and should be interpreted with caution.
- NIV may be considered in patients who do not respond to initial therapies. HFNC can be used as an alternative in patients who cannot tolerate NIV.
- For patients who progress to respiratory failure requiring intubation, inhaled anesthetics may be used as rescue therapy for additional bronchodilation. Isoflurane and sevoflurane are the most commonly used agents. Evidence supporting their use is limited to case reports and small case series, and no randomized clinical trials currently exist comparing inhaled anesthetics to other treatments.

IT'S *SNOT* EASY BEING
WHEEZY

SOCIAL MEDIA HIGHLIGHT:
[@ASTHMA CANADA](#)

KEEP AN EYE OUT FOR MORE
INFO ON OUR WEBINAR ON
APRIL 7TH SPONSORED BY
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Educational Resources

REFRACTORY STATUS ASTHMATICUS

ARTICLE RESOURCES

- [Adjunct therapies for refractory status asthmaticus in children](#)
- [Magnesium sulfate treatment for acute severe asthma in adults—a systematic review and meta-analysis](#)
- [Heliox for non-intubated acute asthma patients](#)
- [The use of non-invasive ventilation in asthma exacerbation: A two-year retrospective analysis of outcomes](#)

If you're having difficulty accessing the articles SHA Library Services is a great resource available to all SHA employees. Feel free to contact them to setup a library card number to obtain off site access.

WEBINARS

- [Management of Severe Asthma Exacerbation by R. Wang, et al. | OPENPediatrics](#)
- [Management of Severe Acute Asthma in Pre-Schoolers](#)
- [Management of Severe Asthma](#)

VIDEO RESOURCES

- [Delaying intubation for an asthmatic](#)
- [Dr. Beach gem on asthma](#)

PODCASTS

- [Status Asthmaticus](#)
- [Mechanical Ventilation in Status Asthmaticus Part 1 with Dr. Mekela Whyte-Nesfield](#)
- [Mechanical Ventilation in Status Asthmaticus Part 2 with Dr. Mekela Whyte-Nesfield](#)
- [The Crashing Asthmatic, Recognition and Management of Life Threatening Asthma](#)

SUMMARIES & GUIDELINES

- [Canadian Pediatric Society, Clinical pathways for asthma exacerbation](#)
- [Canadian Association of Emergency Physicians, Emergency \(ED\) Acute Exacerbation of Asthma Adult Order Set](#)
- [The Lung Health Foundation, Adult Emergency Department Asthma Care Pathway](#)



Stay tuned for info coming about our webinar on April 7th.

Thank you to AstraZeneca for continuing to support us through webinar sponsorship.

As we continue to grow this committee we are finding a need for more Directors.

If you're interested in joining the SaskRTEC please send us an email at admin@saskrtec.ca