



# Australasian College for Emergency Medicine

## Emergency Department preparation for Epidemic Thunderstorm Asthma

A significant Epidemic Thunderstorm Asthma event occurred in Victoria on 21-22 November 2016. Predicted weather conditions indicate that there is an increased risk of this again in 2020. Compounded by the challenges of COVID-19, emergency departments should consider methods to mitigate the risk to patients and ED function. Differentiation of patient symptoms between COVID-19 and thunderstorm asthma is likely to be initially challenging, with a resultant surge in “hot” patients.

Since 2016, in Victoria, recognition of surge activity and communication methods between key stakeholders has been improved, and the State Health Emergency Response Plan has been expanded to include thunderstorm asthma. Public warning systems including pollen counts and thunderstorm asthma warnings on Vic Emergency App and website ([emergency.vic.gov.au](http://emergency.vic.gov.au)), as well as Melbourne University’s forecast site ([melbournepollen.com.au](http://melbournepollen.com.au)). Victoria, QLD, ACT and NSW are also covered by Aus Pollen ([www.pollenforecast.com.au](http://www.pollenforecast.com.au)) and Tasmania and ACT by AirRater website ([airrater.org](http://airrater.org)) or app. State health departments issue thunderstorm asthma warnings.

### In preparation for potential surge events, ACEM recommends that Emergency Departments prepare by:

- Review internal escalation and Code Brown Plans
- Ensure Emergency Physicians and other senior decision makers are aware of the local process to activate Code Brown, and of communication channels with other stakeholders including ambulance and the health department
- When a co-ordinated Emergency Response is activated, it is at Health Department level so as to centrally oversee the emergency system response
- Consider and plan for a surge in patients with respiratory symptoms, in particular patient flow and patient care areas. Consideration should be given to the requirements to rapidly use additional areas, including Respiratory Screening Clinics, when not in use, as surge areas. Plans should include those for clearing, cleaning, stocking and staffing.
- Directors of emergency departments are encouraged to use discretion in their application of COVID-19 restrictions including patient cohorting in the event of a thunderstorm asthma event in order to save lives
- Ensure staff are aware of plans, and of current advice regarding COVID-19 testing for patients with respiratory symptoms.
- Maintain sufficient stocks of asthma medications and disposable or single use spacers. Sufficient quantities should be available to ensure the patient is discharged with sufficient medication for the anticipated event duration.
- Consider pre-formatted documentation in both electronic and manual formats
- Consider pre-printed discharge packs including patient education and advise for follow up with their family doctor. Including medications such as Ventolin, prednisolone in these packs should be considered.
- Consider pre-prepared COVID-19 self-swabbing packs and information for suitable patient groups
- Follow clinical practice guidelines for asthma, preferentially using spacers, and reserving nebulisers for those with an oxygen deficit, unable to tolerate ceasing oxygen for the time required to use a spacer. COVID-safe practices for nebulisers should be followed for patients with suspected or confirmed COVID-19
- Previous events indicate increased requirements for non-invasive ventilation (NIV). This should be used where clinically indicated, and planning is required to ensure that suitable machines, oxygen sources and locations to administer this in a COVID-safe manner are identified in advance

DHHS has produced a checklist for [Epidemic Thunderstorm Asthma](#),<sup>1</sup> particularly in relation to COVID-19, and ACEM recommend that ED Directors in at-risk localities familiarise themselves with this.<sup>2</sup>

<sup>1</sup> <https://www2.health.vic.gov.au/about/publications/FormsAndTemplates/emergency-department-checklist-for-epidemic-thunderstorm-asthma-preparedness>

<sup>2</sup> e.g. Victoria from October 1 – 31 December