



NEWS

Hospitals overwhelmed with patients after “thunderstorm asthma” hits Melbourne

Michael Woodhead

Sydney

At least four people have died and thousands have been taken to hospital with respiratory problems after a “thunderstorm asthma” event in Melbourne on Monday 21 November.

Ambulance services and hospital emergency departments were overwhelmed by the unprecedented incident, believed to have been caused by a surge in pollen levels, triggering allergic asthma in vulnerable people.

Victoria’s health department said that since the event more than 8500 patients had presented to hospitals with respiratory problems, of whom 60 were still receiving treatment and five were in a critical condition.

Among the dead were a 35 year old man, a 20 year old female student, and an 18 year old high school student.

Respiratory physicians said that many of the people who developed respiratory problems after the thunderstorm swept over Melbourne had not previously had asthma diagnosed and were unprepared to deal with the severe symptoms.

“I think we can say that people who are atopic or allergic and who have had eczema or hay fever as a child . . . are at risk of developing asthma in these extreme circumstances. They can have a sudden and severe asthma attack and die,” said Christine McDonald, director of respiratory medicine at Austin Health, a tertiary care and clinical teaching centre in Melbourne.¹

Contributing to the incident was a wet spring that promoted growth of rye grass around the city, resulting in a build up of extremely high pollen levels during subsequent warm, dry days. Moisture from the sudden rainstorm is believed to have ruptured the pollen, creating masses of allergen fragments that were dumped on the city by wind downdrafts.

Melbourne’s ambulance services received almost 2000 calls over five hours during the evening of the storm, six times the usual number, and were unable to respond immediately to many requests for help. A “major disaster response” was implemented, with police and firefighters called in to help transport patients to hospital.

Mark Hew, head of the allergy and asthma department at the Alfred Hospital, said that his hospital saw the same number of patients with respiratory distress in one night as they would expect in six months.²

Emergency specialists praised GPs who stepped in to manage patients who had severe asthma attacks and were unable to get to hospital.

“Numerous GP practices treated critically ill patients, often for hours, because ambulances were simply unavailable,” said Kristin Boyle, an emergency specialist at Geelong Hospital. “I know of multiple lives saved in this way, and I applaud my GP colleagues for the role they played in responding to this disaster.

“I’m aware of one practice where they had two patients, one who walked in literally with a silent chest, and there were no [ambulance] vehicles available to transport them. The GPs cared for these patients for 3–4 hours. They weren’t just providing first aid: they were providing hospital level care, giving Ventolin, Atrovent, putting drips in, giving IV steroids.”

In the aftermath of the storm Victoria’s state government faced questions about why the health system had been caught unprepared for such a major health emergency, especially the delay in dispatching ambulances.

Philip Taylor, from the Deakin University School of Life and Environmental Sciences, said that thunderstorm asthma was a rare event, with the last major incident recorded in Australia in 2000.³ But he said that climate change would increase the likelihood of seeing the unique combination of conditions that causes thunderstorm asthma.

- 1 Mitchell N. Melburnians still recovering from “thunderstorm asthma.” 3AW.A www.3aw.com.au/news/melburnians-still-recovering-from-thunderstorm-asthma-20161123-gsw9rw.html.
- 2 Medew J. Dozens in intensive care units with “thunderstorm asthma,” more deaths predicted. *The Age* 23 Nov 2016. www.theage.com.au/victoria/dozens-in-intensive-care-units-with-thunderstorm-asthma-more-deaths-predicted-20161122-gsv52a.html.
- 3 Karvelas P. Cases of thunderstorm asthma likely to increase. ABC Radio National. www.abc.net.au/radionational/programs/drive/storm-asthma/8055766.

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