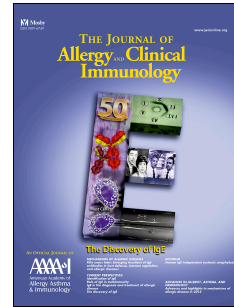


# Accepted Manuscript

Thunderstorm Related Asthma Attacks

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PII: S0091-6749(17)30425-6

DOI: [10.1016/j.jaci.2017.03.003](https://doi.org/10.1016/j.jaci.2017.03.003)

Reference: YMAI 12700

To appear in: *Journal of Allergy and Clinical Immunology*

Received Date: 19 December 2016

Revised Date: 8 March 2017

Accepted Date: 10 March 2017

Please cite this article as: D'Amato G, Annesi Maesano I, Antonio M, Vitale C, D'Amato M, Thunderstorm Related Asthma Attacks, *Journal of Allergy and Clinical Immunology* (2017), doi: 10.1016/j.jaci.2017.03.003.

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## Thunderstorm related asthma attacks

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**Key Words:** Bronchial asthma; Severe asthma; Near fatal asthma; Thunderstorm-related asthma; Meteorological factors and asthma; Prevention of Thunderstorm-related asthma; Asthma-related deaths.

In Melbourne (Australia) on Monday 21 november 2016 hospitals were swamped with emergency patients affected by severe asthma attacks (more than 8,500 patients across Monday night and Tuesday and 8 died), while firefighters and police were called on to help physicians and paramedics respond to thousands of calls after the conditions caused breathing problems for citizens. It caused many people, including those who had no history of asthma, but only of hay fever, to experience breathing difficulties, frequently also severe and near fatal asthma.

Epidemic of Melbourne was a very unusual weather occurrence with wind and torrential rain combined with a high pollen count, sending high quantity of pollen allergens of grasses across the city.

Thunderstorms have been linked to asthma epidemics, especially during the pollen seasons, and there are descriptions of asthma outbreaks associated with thunderstorms, which occurred in several cities, prevalently in Australia (Wagga Wagga and in Melbourne, where happened two other outbreaks in 1989 and 2010) in Europe (in UK, Birmingham and London and in Italy in Naples) and in other cities of the world ,

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