

Epidemic Thunderstorm Asthma

ETSA

21 Nov 2016 – Melbourne

Jul 1983 – Birmingham

Annual / Seasonal Phenomenon

Small scale : Tamworth

Melbourne repeatedly

21 Nov 2016

- “Perfect Storm”
 - Wet Spring / 10 day heat wave
 - High pollen counts
 - 6pm storm / people outdoors
- >3,400 Resp Emergencies in EDs over 48Hrs
- ?10,000 people affected overall
- 10-fold increase Pub Hosp Asthma admissions
- 35 in ICU
- 10 deaths

21 Nov 2016

- Young adults
- Allergic Rhinitis 87%
- No previous Diagnosis Asthma 56%
- South, South-East and East Asian

21 Nov 2016

- Of those diagnosed Asthmatics (44%)
 - 2/3 had current asthma symptoms
 - 2/3 not prescribed or not using ICS
 - 40% had utilised urgent care in previous 12 months

21 Nov 2016

- Of the 44% who were diagnosed with asthma
 - Half had suboptimal control
 - 40+% had Asthma Action Plan of which 2/3 implemented that plan

ETSA

- Moisture ruptures pollen grains (osmotic shock)
 - High spore concentration
- Storm produces swirling
- Perennial rye grass has ultrafine allergen-coated starch particles (<2.5 micron)

ETSA in WA?

- Need
 - Perennial Rye Grass plus wet Spring
 - Thunderstorms end Spring or early Summer
 - Possible similarities with Wheat Bin Asthma

What Should We Be Doing?

- What variety of Asthma does my patient have?
 - Atopy
 - Family History
 - Smoking
 - Work
- Spirometry vs Full PFTs
- FeNO
- FBC (Eosinophils); 300 is the number
- IgE

What Should We Be Doing?

- Hunt out the Hay-Fever
 - Hay-Fever is “asthma up the nose”
 - Abolish the therapeutic nihilism here
- Review Asthmatics pre-thunderstorm seasons
 - Emphasise ICS
- Written Action Plans
- Possible place for Epi-Pens, esp. in isolation