Abstracts

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Background: Development of a safe, cost-effective and scalable beta-lactam allergy de-labelling strategy could improve antibiotic use.

Methods: Phase 1 of this observational, prospective study described outcomes of current local beta-lactam de-labelling practices at six sites. A modified Delphi method then determined standardised procedures for Phase 2: a minimum panel of skin testing reagents if performed; addition of a proforma letter for all participants and their doctors outlining assessment results; and offer of a free MediBand to those confirmed allergic.

Testing outcomes and participant perception regarding allergy status eight weeks post-assessment were compared between phases. Primary outcomes were successful de-labelling and correct participant allergy perception at follow-up. Comparisons were made using chi-squared test and concordance by Kappa statistic.

Results: Of 195 participants (median age 50 years, [21.5% <18], 36.9% male), 67% were de-labelled (82% Phase 1, 69% Phase 2, p = 0.034). 52.9% in Phase 1 and 88.2% in Phase 2 underwent skin testing (p < 0.05), with no significant difference in outcomes. Index reaction of anaphylaxis (OR 0.69, p = 0.02) and any prior anaphylaxis (OR 0.34, p = 0.005) were associated with unsuccessful de-labelling. In Phase 1, 75% of participants received written results, 52% were informed verbally. All Phase 2 participants received written results, 61% received verbal results. 31% of allergic participants in Phase 1 were advised to obtain medical alert jewellery. In Phase 2, 59% of allergic participants received a MediBand (p > 0.05). Eight weeks after testing, 34% in Phase 1 had the correct perception regarding their allergy versus 91.6% in Phase 2 (p < 0.001). No individual change in Phase 2 (more skin testing, letters, verbal results, Medibands) was significantly associated with improved understanding (all p > 0.05). 17 participants took a beta-lactam during the 8-week follow-up, with one having a hypersensitivity reaction.

Conclusions: Standardised testing and communication collectively improved the effectiveness of beta-lactam allergy delabelling. Longer-term follow-up is required.

P34: WHAT ARE THE TRENDS AMONGST PEOPLE WHO SEEK ASSISTANCE FROM ALLERGY FOCUSED PATIENT ADVOCACY ORGANISATIONS?

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Purpose: Allergy & Anaphylaxis Australia (A&AA) is a patient advocacy organisation for people with allergic disease and those who care for them. A new customer relationship management (CRM) tool was implemented in mid-2020 providing greater: 1) insight into the nature and frequency of need for A&AA assistance; and 2) understanding of the type of people that request A&AA assistance.

Methods: An audit of help requests for support/assistance through a CRM tool between 1 October 2020 to 30 June 2021 was undertaken, and aggregate data used to determine descriptive statistics.

Results: A&AA received 1,423 enquiries of which 45% were via phone, 35% via email and 17% via social media channels. Enquiries were most likely to originate from a parent/carer or friend of someone with an allergy (44%) than the person themselves (33%); 3.3% of enquiries originating from healthcare professionals. The majority of enquiries (71%) were a request for health support, and of these 56% related to food allergy, 14% related to adrenaline auto-injectors, 9% related to infant feeding and 7% related to eczema. Of all food related complaints received by A&AA, 68% related to packaged foods and 32% related to food service. Packaged food complaints followed a similar pattern of population distribution across the country, however the majority of food service complaints (50%) originated in NSW followed by 30% in Victoria and 11% in Queensland.

Conclusion: The findings of this study can assist in the development of resources specific to those with allergic disease, help guide healthcare professionals in what knowledge gaps exist for their patients and ensure that all future resource development is patient focused and addresses their needs.

P35: EARLY RESULTS OF AN IN VIVO AND IN VITRO ALERGY TESTING PROTOCOL FOR COVID-19 VACCINATIONS

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Introduction: Mechanisms underlying allergic reactions to the new BNT162b2 (Pfizer) and AZD1222 (AstraZeneca) COVID-19 vaccines are poorly understood. Polyethylene glycol (PEG) is implicated for AZD1222; and polysorbate 80 (PS80) and disodium edetate (EDTA) for BNT162b2; and polyborate 80 (PBS80) and disodium edetate (EDTA) for AZD1222.

Methods: Patients referred to our service were investigated with standardised vaccine skin-prick testing (SPT) and intradermal testing (IDT) protocols. Basophil activation testing (BAT) was performed in patients with history highly suggestive of excitipient or vaccine allergy.

Results: Reason for referral was suspected excitipient allergy in 16/23 (70%), previous other vaccine reaction in 4/23 (17%), and reaction to the BNT162b2 vaccine in 3/23 (13%). In patients with suspected excitipient allergy, SPT was only positive in 1/16 (6%). In 12/16 patients with suspected PEG allergy, IDT and BAT were positive in 5 (42%) for the BNT162b2 vaccine but not PEG. 3/5 have subsequently undergone successful vaccination with AZD1222, while 1/5 had cross-reactivity with AZD1222 on BAT and has not been vaccinated. 2/16 patients with suspected PS80 allergy were negative on SPT, IDT; and BAT, and have undergone successful AZD1222 vaccination. In the 2/16 patients with EDTA allergy IDT was positive to EDTA but neither vaccine, correlating with BAT. 1 has been successfully vaccinated with the EDTA-containing AZD1222 vaccine.

2 patients (1 reaction to BNT162b2, 1 other vaccine reaction) developed systemic reactions during testing without trypstatin elevation. Both were associated with local flare response to the BNT162b2 vaccine, both have undergone successful vaccination with the AZD1222 vaccine.

All other patients with negative SPT, IDT, and BAT results have subsequently tolerated vaccination.

Conclusion: Most patients can be successfully vaccinated with available COVID-19 vaccines. SPT has low sensitivity and a combined protocol of SPT, IDT, and BAT provides confidence in allergy delabelling. Not all excipient allergies correlate to vaccination allergy and BAT provides a powerful diagnostic tool in these cases.

P35: PATIENT JOURNEY: A MASTOCYTOSIS SURVEY IN AUSTRALIA

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Introduction: Mastocytosis may remain unrecognised for years. Its unpredictable nature and multiple symptoms have a significant impact on patients’ lives. This study explored the patient journey, documented demographic characteristics, and explored symptoms and their impact on lives.

Method: This multi-centre collaboration between The Australasian Mastocytosis Society (TAMS) and various hospitals took place in 2020 in the form of an online survey. It was advertised on TAMS website and consisted of 64 questions.