

during oral challenge underwent COVID-19 vaccination (1 reported mild cutaneous symptoms); 6 avoided vaccination. Both positive ST patients experienced immediate symptoms to PEG oral challenge (1 required epinephrine) and were advised to avoid vaccination. Of 46 with negative PEG oral challenge, 30 (65%) were vaccinated with only 2 having mild reaction.

Conclusions: Diagnostic ST and PEG oral challenge, and DBPC challenge in selected cases, can provide useful guidance for patient and allergist in the shared decision-making process of receiving COVID-19 vaccination.

P004

EPIDEMIOLOGY AND ETIOLOGY OF ANAPHYLAXIS IN A CHILDREN'S HOSPITAL EMERGENCY DEPARTMENT FROM 2010-2020



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Introduction: ED visits for anaphylaxis have risen significantly in the last 20 years. Knowledge of predisposing factors can lead to risk reduction, earlier identification, and improved care.

Methods: A retrospective chart review of pediatric ED patients at a tertiary Children's Hospital (2010-2020), selected by 28 ICD-9/ICD-10 codes for anaphylaxis/allergic reactions and verified using NIH criteria. Severity was determined using a recent consensus-based anaphylaxis severity-grading-system. Statistics completed with SPSS.26.

Results: 1023 charts were reviewed, 229 met NIH criteria for anaphylaxis. Mean age was 6.6 (0.25-20 years), 56% male, 51% White, 45% were Black. 30.6% of episodes were in children ≤ 2 , 19% (3-5 years), 23.6% (6-10 years) and 19.5% (11-15 years) and 7.3% (> 15 years). 91% had no history of previous anaphylaxis, though 48% had previous diagnosis of allergy (peanut (PN) =18%, tree nuts (TN) =15%, milk=18%, egg=13%, PCN=6%). Based on severity scale, 93% of episodes were mild, grade 2 or 3 (0-5) at presentation with no significant M/F or racial differences in severity ($p=0.41$; $p=0.45$). Highest severity scores were in 6-15 yo compared to children < 12 months ($p= 0.006$). Anaphylaxis causes included: 64% food-induced (25% PN /21% TN), drugs (12%), unknown (19%), insect stings (1%). Children over 15 had higher association with drug-induced anaphylaxis ($p<0.001$).

Conclusion: Older children have more severe anaphylaxis. PN/TN are most frequent causes of anaphylaxis. Almost 1/3 of cases were kids ≤ 2 years old. 90% of episodes had no previous history suggesting anaphylaxis occurs in younger children and is more challenging to predict.

P005

EXAMINING HYPERSENSITIVITY REACTIONS TO PLATINUM-BASED CHEMOTHERAPEUTIC AGENTS AND OUTCOMES TO DESENSITIZATION PROCEDURES



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Introduction: Hypersensitivity reactions (HSRs) to platinum-based chemotherapy pose treatment challenges. Classification of platinum HSRs is not well described in existing literature and may be used to predict desensitization outcomes. We aim to characterize platinum HSRs using a published classification system and examine desensitization outcomes.¹

Methods: A single-center retrospective cohort study was conducted of adult patients with solid tumor malignancies undergoing inpatient desensitization for platinum-based HSRs from 2016 –2021. Patient demographics, chemotherapy histories, and desensitization outcomes were collected. HSRs were classified as mild, moderate (low-risk), moderate (high-risk), or severe using a published classification system.¹ Descriptive statistics were performed.

Results: Ten patients were included in the study with over two-thirds female and 80% self-identified as Latinx or Black/African

American. Patients received a mean of 6 platinum doses prior to initial HSR. Reactions were classified as mild (30%), moderate (low-risk; 40%) and severe (30%). The most common symptoms were flushing and pruritus (70%). Among patients with severe HSRs, symptoms included flushing (100%), tachycardia (67%), and hypoxia (67%). Mean number of desensitization courses was 6.6 (± 8.8) per patient. Two patients had desensitization reactions, both of whom had a severe initial HSR. These reactions were classified as mild ($n = 1$) and severe ($n = 1$).

Conclusion: Most HSRs to platinum agents were classified as mild/moderate (low-risk), and desensitization was well tolerated. Desensitization reactions occurred only in those with severe initial HSRs. Classifying patients by severity of initial HSR may help to predict desensitization outcomes. Further research is needed to determine the optimal setting for platinum desensitization.

Figure. SD = standard deviation

P006

POLYETHYLENE GLYCOL ALLERGY LABEL: NOT AN ABSOLUTE CONTRAINDICATION TO RECEIVING AN MRNA COVID-19 VACCINE



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Introduction: Individuals are often asked if they have a polyethylene glycol (PEG) allergy prior to receiving an mRNA COVID-19 vaccine. An affirmative answer may delay vaccination, which may not always be necessary.

Methods: A retrospective chart review of patients with PEG on their allergy list who presented to a COVID-19 vaccination clinic was performed with emphasis on demographic characteristics, atopic comorbidities, PEG allergy details, and outcome of vaccination.

Results: Data were available for 100 patients with listed PEG allergy who received a COVID-19 vaccine. Gastrointestinal intolerance was the most reported PEG reaction ($n=38$) followed by cutaneous symptoms ($n=29$) and a variety of other non-allergic symptoms ($n=28$). Oral PEG preparations accounted for most reported PEG allergies ($n=84$). 64 patients received the Pfizer vaccine, 33 received the Moderna vaccine, and 3 received the Janssen vaccine. All 100 patients tolerated their full vaccine series without allergic symptoms.

Conclusions: This review demonstrates that patients with a prior adverse reaction to PEG containing products can tolerate mRNA COVID-19 vaccines. Our cohort primarily consisted of patients who experienced gastrointestinal intolerance with oral PEG preparation. This is unlikely to represent a true PEG allergy and should not delay vaccination. Given PEG's potential role as a culprit in mRNA COVID-19 vaccine reactions, it is still important to assess for PEG allergy prior to vaccination, but it is important to recognize non-allergic reactions. If there is any question, use of a non-PEG containing vaccine (Janssen) or rapid e-consultation with an allergist may be appropriate to facilitate timely vaccination.

P007

TRAIN-THE-TRAINER PROGRAM EFFECTIVELY PROVIDES ALLERGY EDUCATION TO FIRST RESPONDERS AND EXPANDS THE REACH OF ALLERGISTS



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Introduction: As the incidence of anaphylaxis increases, communities need to know how to recognize and respond to allergy emergencies. Allergists can play an impactful role in allergy preparedness by teaching first responders how they can teach schools about anaphylaxis.

Methods: Board-certified allergists adopted a train-the-trainer approach to instruct first responders on teaching food allergy-focused anaphylaxis and epinephrine classes. Instructor training initially occurred in-person. Due to COVID and scalability, training was converted to a hybrid training (primarily asynchronous, online course with live, synchronous components required) and expanded