

Outpatient Primary Care Management and Referral Guidelines
San Antonio Military Medical Center and Wilford Hall Ambulatory Surgical Center
Allergy and Immunology Service

Drug Allergy

Definition:

An immunologic reaction to a medication. All adverse drug reactions are NOT immunologically mediated.

Type A reactions: 85-90% of adverse drug reactions and are predictable based on known pharmacologic properties of the drug. Example includes gastritis with long-term NSAID use

Type B reactions: 10-15% of adverse drug reactions and are unpredictable. These reactions can be further subdivided into exaggerated sensitivity to known drug toxicities/intolerance (at lower than expected doses), idiosyncratic drug reactions (ie. Primaquine causing nonimmune hemolytic anemia in patients with G-6-PD deficiency), or immunologic drug reactions (drug allergy)

Drug Allergy can be immediate or delayed. Immediate reactions are type 1 and from drug-specific IgE and result in signs/symptoms of anaphylaxis including urticaria, angioedema, respiratory distress, gastrointestinal symptoms, or hypotension. These symptoms typically occur within the 30-60 minutes after administration of the medication. Type 2-4 reactions are delayed (typically hours to up to 3 days) and either IgG mediated (ie. Drug-induced hemolytic anemia), immune complex mediated (ie. Serum sickness), or T cell mediated (contact dermatitis).

History

- Detailed description of implicated drug(s) including nature and timing of the reaction(s)
- If possible, determine if the reaction is an adverse and known drug reaction (Type A) versus an unpredictable reaction (Type B)

Examination/Evaluation

- Physical examination findings include characterization of rash, mucosal abnormalities, articular findings
- Consider laboratory studies such as CBC (eosinophilia, hematologic abnormalities), renal function and liver enzymes. Tryptase level can determine if patient is having true anaphylaxis during an acute event (best if drawn within 60-90 minutes to onset of symptoms)
- Consider chest radiograph for pulmonary hypersensitivity reactions

Management

- Immediate reactions (Type 1) should be treated acutely using algorithm for anaphylaxis (first treatment should always be intramuscular epinephrine at 1:1000)
- Discontinue any medications suspected of causing the reaction
- Find alternative but dissimilar medication for disease process the requires immediate management

Indications for referral

- No referral indicated for Type A reactions
- No referral indicated for Type B reactions that are idiosyncratic or exaggerated sensitivity to known drug toxicities/intolerance
- Consider referral for Type B, immunologic, drug reactions either immediate or delayed IF
 - o Patient requires that medication or a similar medication for disease process and no alternatives are available
 - o Patient has a remote or poor history for Penicillin allergy. Penicillin testing is the ONLY standardized drug testing available and can help minimize use of more costly and broader-spectrum antibiotics which increase development of multiple drug resistant bacteria, higher health care costs, and have worse side effect profiles
- Common referrals include:
 - o Local anesthetics
 - o NSAID hypersensitivity, particularly in the setting of asthma (Aspirin-Exacerbated Respiratory Disease)
 - o Radiocontrast media
 - Typically use of non-ionic, lower osmolality radiocontrast media with or without pretreatment (corticosteroids, antihistamines) can prevent reactions
 - Seafood allergy/iodine allergy is NOT a contraindication for radiocontrast media
 - o Antibiotics
 - Standardized testing is only available for penicillin
 - Other antibiotic tests are non-standardized and results have poor negative and positive predictive values
 - The gold standard is for a challenge if the diagnosis is uncertain
 - o Peri-operative anaphylaxis
 - o Immunizations
 - Large local reactions are common side effects and are not indications for referrals
 - Concerns for reactions to prior vaccinations or a co-existing egg allergy should prompt referral for possible testing and/or challenge in the allergy clinic

Consideration on desensitization

- Desensitization or induction of tolerance is not possible for idiosyncratic or non-IgE mediated reactions. This procedure is only successful in patient who have demonstrated a Type 1 immediate reaction or strongly suspected of this type of adverse drug reaction
- Desensitization protocols should be done on the inpatient setting due to risk of anaphylaxis
- Desensitization takes hours to days and the results are temporary. Once the medication is stopped, repeat desensitization would be required for future medication administration.
- Due to risks inherent to this procedure, confirmation of no alternative option of medication would be required.

There are very few consults that warrant ASAP or Urgent status. If this is entered by the referring provider, it will be downgraded to Routine unless that provider calls and directly speaks with an allergist either at SAMMC or WHASC and it is confirmed as an urgent consult.