# Allergy & Immunology\_Team5\_Report.docx

## 1. Research Documentation

### Sources Used

* PubMed - https://pubmed.ncbi.nlm.nih.gov/
* World Allergy Organization (WAO) Reports - https://www.worldallergy.org/
* National Institute of Allergy and Infectious Diseases (NIAID) - https://www.niaid.nih.gov/
* Clinical guidelines from American Academy of Allergy, Asthma & Immunology (AAAAI) - https://www.aaaai.org/
* Mayo Clinic - https://www.mayoclinic.org/
* Centers for Disease Control and Prevention (CDC) - https://www.cdc.gov/
* World Health Organization (WHO) - https://www.who.int/
* Cleveland Clinic - https://my.clevelandclinic.org/
* Medscape - https://www.medscape.com/

### Methodology

* **Search Terms**:
  + “Food allergy management 2020+”
  + “Primary immunodeficiency diagnosis guidelines”
  + “Anaphylaxis treatment meta-analysis”
* **Filters Applied**:
  + Publication years: 2019–2025
  + Article types: Meta-analyses, Systematic Reviews, Guidelines
  + Language: English
* **Validation**: Data was sourced from peer-reviewed publications and cross-checked across multiple databases to ensure accuracy and reliability.

### Challenges Faced

* Limited updated guidelines on some rare immunodeficiencies (e.g., Hyper-IgM syndrome).
* Some data restricted to specific regions (e.g., food allergy prevalence in North America vs. Africa).
* Difficulty accessing full-text articles without institutional access.
* Variability in diagnostic criteria and antibody testing availability over time affects incidence estimates.
* Antibody-negative autoimmune encephalitis cases are heterogeneous and under-recognized, complicating epidemiological clarity.
* Some studies were hospital-based rather than population-based, limiting generalizability.
* Regional differences in autoimmune encephalitis recognition and reporting exist, with fewer data from low- and middle-income countries like Nigeria.

### Date Accessed

* May 20–June 9, 2025

### Description of Contents

* Guidelines for diagnosis and treatment of allergic and immunologic disorders.
* Recent advancements in immunotherapy and monoclonal antibody use.
* Epidemiological data on allergic conditions.
* Causes, symptoms, and signs of allergic and immunologic diseases.
* Prevention strategies.
* Lifestyle modifications and alternative medication options.
* Regional considerations, including challenges in Nigeria (e.g., limited access to diagnostic tools and advanced therapies).

## 2. Disease List & Individual Contributions

### Diseases Covered

* **Allergic Disorders and Hypersensitivity Reactions**:
  + Type I Hypersensitivity: Allergic rhinitis (hay fever), atopic dermatitis (eczema), allergic conjunctivitis, allergic asthma, food allergies, anaphylaxis, urticaria (hives), angioedema, latex allergy, venom allergy, allergic bronchopulmonary aspergillosis.
  + Type II Hypersensitivity: Autoimmune hemolytic anemia, Goodpasture syndrome, Hashimoto thyroiditis, hyperacute transplant rejection.
  + Type III Hypersensitivity: Serum sickness, rheumatoid arthritis, cryoglobulinemia, hypersensitivity pneumonitis, leukocytoclastic vasculitis.
  + Type IV Hypersensitivity: Contact dermatitis, Stevens-Johnson syndrome/toxic epidermal necrolysis (SJS/TEN), drug rash with eosinophilia and systemic symptoms (DRESS), chronic hypersensitivity pneumonitis, tuberculosis immune response, allograft rejection.
* **Primary Immunodeficiency Disorders**:
  + Common Variable Immunodeficiency (CVID), X-linked Agammaglobulinemia (XLA), Selective Immunoglobulin A Deficiency, Severe Combined Immunodeficiency (SCID), Chronic Granulomatous Disease (CGD), Hyper IgE Syndrome, Wiskott-Aldrich Syndrome, Complement Deficiencies.
* **Other Immune-Mediated and Autoimmune Disorders**:
  + Autoimmune thyroid diseases (Hashimoto’s thyroiditis, Graves’ disease), systemic lupus erythematosus (SLE), Sjögren’s syndrome, scleroderma, polymyositis/dermatomyositis, vasculitides (e.g., Wegener’s granulomatosis, Churg-Strauss syndrome, Henoch-Schönlein purpura, Kawasaki disease), primary biliary cirrhosis, primary sclerosing cholangitis, pemphigus and pemphigoid, polyendocrine autoimmune syndromes, multiple sclerosis, hereditary angioedema (HAE), Guillain-Barré syndrome, rheumatoid arthritis, celiac disease, myasthenia gravis, autoimmune hepatitis, autoimmune pancreatitis, autoimmune encephalitis.
* **Respiratory and Pulmonary Allergic/Immunologic Diseases**:
  + Asthma (non-allergic), chronic cough related to allergy, bronchopulmonary eosinophilia, allergic fungal sinusitis, aspergilloma.
* **Food and Drug Allergies**:
  + Food intolerance, drug allergy and hypersensitivity reactions (including anaphylaxis).
* **Other Conditions**:
  + Eosinophilic disorders (e.g., eosinophilic esophagitis), recurrent fetal loss related to immune causes, hereditary angioedema and acquired C1-inhibitor deficiency, immunodeficiency secondary to infections (e.g., HIV), screening and management of primary immunodeficiencies, lymphoproliferative disorders with immune dysregulation, paraneoplastic autoimmune syndromes.

### Individual Contributions

* **Charlham El**: Researched allergic disorders (Type I–IV hypersensitivity reactions) and contributed to epidemiological data analysis, focusing on regional prevalence in Nigeria.
* **Margeret Sylvester**: Compiled data on primary immunodeficiencies and autoimmune disorders, drafted treatment guidelines, and addressed regional diagnostic challenges.

## 3. Submission Details

* **Deadline**: June 10, 2025
* **Requirements**: Submit as a Word Document (.docx) to the designated academic or clinical supervisor, formatted for patient standard comprehension.

## File Format and Size

* Format: Word Document (.docx)
* Size: 3.3 MB