

Allergy Assessment Blueprint

Curriculum area	Competence	CBD	CEX	DOPS	MSF	Exam
Table 1.1: Allergy: relevant immunological knowledge						
K	The core body of immunological knowledge (Table 1.2)	●				●
	Type I hypersensitivity reactions	●				●
	Hypersensitivity reactions other than Type I	●				●
	T and B lymphocytes	●				●
	The mechanisms of allergic inflammation: T cells, eosinophils, mast cells and their products, cytokines, lipid mediators					●
	Regulation of IgE synthesis					●
	The cellular and molecular immunology of asthma, rhinitis, urticaria, reactions to drugs	●				●
	Postulated immunological mechanisms of allergen immunotherapy	●				●
	Key targets for anti-allergic drugs and their mechanisms of action	●				●
	The biology, aerobiology and antigenicity of allergens					●
	The concept of major and minor allergenic determinants					●
	The epidemiology of atopy and asthma	●				●
	New developments in therapy, including immunotherapy and primary prevention of allergic disease	●				●
S	Demonstrates knowledge of the immunological basis of allergy	●				●
	Evaluates review articles	●				●
	Demonstrates ability to perform literature searches	●				●
	Critically analyses and evaluates guidelines	●				●
	Discusses hypotheses regarding immunological mechanisms in allergy	●				●
A	Exhibits continual willingness to increase knowledge	●			●	
	Recognises the limitations of knowledge regarding the immunopathogenesis of allergic disease	●				
	Consults colleagues for further clarification/ understanding	●			●	

KEY: K = Knowledge; S= Skills; A= attitudes/behaviour; CBD = case based discussion; CEX = mini-CEX (clinical examination); DOPS = direct observation of procedure; MSF= multi-source feedback; Exam= Specialist Examination (knowledge test).

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Table 2: Allergy: relevant laboratory experience						
K	<p>Describes the principles and identifies sources of error and interpretation of the following laboratory tests:</p> <p>IMMUNOCHEMISTRY/SEROLOGY</p> <ul style="list-style-type: none"> • Immunoglobulins • Immunoglobulin subclasses • Total and specific IgE • Mast cell tryptase • ECP • Autoantibodies • ANCA • Precipitins • Paraprotein assessment • Cryoglobulin assessment • Complement components • CI esterase inhibitor • Specific IgG titres <p>IMMUNOHISTOLOGY</p> <p>CELLULAR STUDIES</p> <ul style="list-style-type: none"> • Cell markers/sub-populations (immunodeficiency, reactive, neoplastic states) • Lymphocyte function/activation • Neutrophil function • <i>In vivo/in vitro</i> cytokine production <p>MOLECULAR STUDIES</p> <ul style="list-style-type: none"> • Southern/Northern/Western blotting • PCR • Ig/T cell receptor gene rearrangement 			●		●
S	Demonstrates familiarity with Health and Safety Regulations and COSHH assessments			●		●
	Discusses the indications for laboratory based tests			●		●
	Analyses the results of investigations and evaluates their clinical significance			●		●
	Demonstrates knowledge of Standard Operating Procedures			●		●

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	Evaluates the accuracy, sensitivity and specificity of laboratory investigations					
A	Recognises the indications for laboratory investigations	●		●		●
	Exhibits awareness of the limitations of laboratory investigations in terms of clinical significance, sensitivity and specificity	●		●		●
	Contributions to the development of laboratory testing procedures	●		●		●
Table 3.1: Allergy: asthma						
K	Defines asthma	●				●
	Distinguishes between causes of cough, SOB, wheeze, airways obstruction	●	●			●
	Explains how to assess asthma severity	●	●			●
	Identifies and manages occupational asthma	●	●			●
	Explains how to educate patients in self management (self administration of therapy, monitoring of PEF, symptom diary, crises)	●	●	●		●
	Identifies and manages occupational asthma	●	●			
	Describes principles of therapy, including acute and chronic severe disease	●				
	Describes unwanted effects of therapy	●				
S	Takes a history and performs an examination	●	●			
	Performs SPT/RAST			●		
	Performs and interprets allergen/occupational challenge			●		●
	Performs sputum induction			●		●
	Demonstrates knowledge of aeroallergens and occupational allergens	●				●
	Discusses relevant allergen avoidance	●	●			●
	Performs and evaluates lung function testing	●		●		●
	Interprets relevant imaging	●	●			●
	Teaches PEF monitoring			●		
	Discusses principles of therapy (BTS/GINA guidelines)	●	●			●
	Demonstrates drug delivery devices	●		●		●
	Evaluates effects and unwanted effects of therapy	●	●			●
	Discusses management of acute, severe asthma	●	●			●
	Performs aspirin desensitisation			●		●
A	Recognises the importance of patient-based variables (compliance, understanding, inhaler technique) in asthma control	●	●			
	Consults other experts regarding patient management, such as occupational physicians, speech therapists, where necessary	●	●		●	

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Table 3.2: Allergy: rhinitis						
K	Defines seasonal and perennial rhinitis and conjunctivitis, and distinguishes between these and other causes of acute and chronic rhinitis and conjunctivitis	●	●			●
	Identifies triggering/exacerbating factors	●	●	●		●
	Describes the investigation and management of chronic and recurrent sinusitis (structural nasal blockage, cystic fibrosis, ciliary dyskinesia, congenital and acquired immune deficiency)	●				●
	States the causes and clinical features of occupational rhinitis	●	●			●
	Explains the indications for, and principles of therapy, including immunotherapy (BSACI/ARIA)	●	●			●
S	Takes a history and performs an appropriate examination	●	●			
	SPT/RAST			●		
	Performs and interprets allergen and occupational challenge			●		●
	Identifies and manages occupational rhinitis	●				
	Performs rhinoscopy and evaluates the nasal airways			●		
	Performs and interprets rhinomanometry			●		
	Performs and interprets saccharin test			●		
	Performs and interprets ciliary motility tests			●		
	Discusses nasal potential measurements	●				●
	Interprets sweat sodium test	●				●
	Interprets relevant imaging	●				●
A	Recognises the importance of concurrent management of the nasal and bronchial airways	●				●
	Recognises when specialised ENT referral is indicated	●	●			
	Contributes to multi-disciplinary approach	●	●		●	
Table 3.3: Allergy: atopic dermatitis						
K	Defines atopic dermatitis and distinguishes between this and other causes of dermatitis	●				●
	Describes complications of atopic dermatitis and their treatment	●				●
	Identifies triggering/exacerbating factors	●				
	Describes the principles of therapy					
	Explains when to refer for specialist management	●				
	Distinguishes between atopic dermatitis and contact dermatitis, and recognises the need for referral for specialist investigation of contact dermatitis	●	●			
S	Takes a history and performs an appropriate examination	●	●			
	Performs SPT/RAST			●		
	Discusses trials of allergen avoidance, including food allergens	●	●			

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	Recognises the social/psychological problems caused by chronic skin disease	●	●			
	Contributes to multi-disciplinary approach	●	●		●	
Table 3.4: Allergy: food allergy/intolerance						
K	Describes the clinical sequelae of IgE-mediated food allergy, and distinguishes these from intolerance syndromes	●				●
	Describes the natural history of food intolerance syndromes	●				●
	Describes key food allergy syndromes (peanut, milk, etc.)	●				●
	Explains the value and limitations of skin prick testing and RAST in food allergy diagnosis	●				●
	Describes the advantages and disadvantages of specialised diets in food allergic/intolerant patients	●				●
	Explains the management of severe food allergy syndromes in the community	●				●
	Identifies GI disorders which may mimic food allergy (coeliac disease, lactose intolerance, dumping syndromes, IBD, etc.)	●	●			●
S	Takes a history and performs appropriate examination	●	●			
	Performs SPT/RAST, including prick-prick testing			●		
	Selects and interprets planned exclusion/reintroduction diets	●	●			
	Interprets diet diaries	●		●		
	Performs single and double blind, placebo controlled food challenge			●		
	Demonstrates emergency therapy for severe food-induced reactions			●		●
A	Chooses appropriate goals in assisting with dietary problems	●				
	Recognises cultural and racial differences in attitudes to diet	●				
	Recognises when specialist referral is indicated	●	●			
Table 3.5: Allergy: drug/vaccine allergy						
K	Describes the mechanisms of different types of reaction to drugs and their natural history	●				●
	Explains patterns of adverse reactions to different drugs	●				●
	Describes mechanisms of unwanted effects of drugs	●				●
	Explains how to investigate systematically adverse drug reactions during general and local anaesthesia			●		●
	Explains the value and limitations of SPT/RAST testing with drugs	●				●
	Describes the principles of drug challenge and drug desensitisation	●		●		●
	Provides advice on the use of alternative drugs	●				●
	Identifies multiple drug allergy syndromes	●				●
	Describes the use of vaccines, their unwanted effects and contraindications	●				●
S	Takes a systematised history of drug exposure	●	●			
	Performs relevant examination	●	●			
	Performs SPT/RAST with drugs and derivatives (e.g. major/minor penicillin determinants)	●		●		

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	Selects and applies drug challenge and desensitisation protocols	●		●		●
	Discuss strategies to prevent allergic drug reactions	●				●
	Analyses the immune response to vaccines	●				●
	Investigates possible allergic responses to vaccines	●		●		
A	Recognises the urgency of timely investigation of patients awaiting operations or needing particular antibiotics	●			●	
Table 3.6: Allergy: Insect venom allergy						
K	Describes the biology and classification of the hymenoptera					●
	Explains the clinical features of local and systemic reactions to insect stings, and recognition of when these are IgE-mediated	●				●
	Describes the natural history of venom allergy in adults and children	●				●
	Interprets skin prick testing with serial concentrations of venom	●		●		
	Outlines principles of insect avoidance					●
	Describes the emergency management of an insect sting in allergic patients	●	●			●
	Explains when and when not to prescribe immunotherapy	●				●
	Explains the likely outcome of insect venom immunotherapy	●	●			●
S	Takes a history and performs relevant examination	●	●			
	Performs SPT/RAST, including venom serial concentration SPT	●		●		
	Applies correct management decision	●	●			●
	Demonstrates emergency treatment	●	●			●
A	Recognises and addresses anxiety caused by inset venom allergy	●	●			
Table 3.7: Allergy: Urticaria/angioedema						
K	Describes the clinical sequelae and natural history of the urticaria/angioedema syndromes	●	●			●
	Recognises physical precipitants and other precipitating/exacerbating factors	●	●			●
	Explains how to recognise and manage underlying vasculitis	●				●
	Explains when and when not to investigate	●	●			
	Explains the principles of management	●	●			●
	Justifies referral for more specialised therapy	●				●
	Describes specialist therapy (immunosuppressive therapy, plasmapheresis PUVA etc.)	●				●
	Describes the diagnosis, prophylaxis and management of hereditary angioedema	●				●
S	Takes a history and performs an appropriate examination	●	●			
	Performs SPT	●		●		
	Performs and evaluates physical challenge tests	●		●		
	Analyses and interprets complement proteins	●				●
	Evaluates thyroid function	●				●
	Analyses and interprets C1 esterase inhibitor concentration/activity	●				●
	Performs oral challenge with foods/drugs/food additives	●		●		
	Performs skin biopsy	●		●		

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A	Recognises and addresses anxiety and stress caused by chronic urticaria/angioedema	●	●			
Table 3.8: Allergy: anaphylaxis						
K	Describes the mechanisms, causes, clinical features and differential diagnosis of anaphylactic and anaphylactoid reactions	●	●			●
	Explains a systematic approach to identification of aetiology	●				●
	Explains how to recognise “at risk” patients and provides advice on prevention	●				●
	Describes desensitisation protocols	●				●
	Explains emergency treatment plans, including self-administration of adrenaline	●	●			●
	Describes how to manage acute anaphylaxis in adults and children	●	●			●
S	Takes a comprehensive relevant history (drugs, vaccines, latex, biological fluids, insects, foods exercise) and performs relevant examination	●	●			
	Performs SPT/RAST and relevant laboratory tests	●		●		
	Performs challenge tests (drugs, exercise, food, etc)	●		●		
	Teaches self-administration of adrenaline	●		●		
A	Recognises the urgency of timely investigation and management of anaphylaxis	●	●			
	Provides practical advice and reassurance	●	●			
	Communicates with other key carers	●	●		●	●

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Table 3.9: Allergy: latex allergy						
K	Describes the natural history, aetiology and spectrum of clinical sequelae of latex reactions	●	●			●
	Defines “at risk” groups	●				●
	Explains routes of exposure to latex	●				●
	Explains cross-reactivity of latex allergen with other allergens	●				●
	Describes the practical management of latex allergy	●	●			●
	Describes the principles of latex avoidance and the use of latex alternatives at home and at work	●	●			●
	S	Takes a comprehensive history and examination	●	●		
Teaches advice about hospital care, including avoidance of exposure to latex rubber		●	●			●
Discusses occupational strategies for prevention of latex allergy in staff		●				●
A	Recognises the importance of helping patients to avoid latex exposure	●	●			
	Consults with other health care professionals, such as occupational physicians, where appropriate	●			●	
Table 3.10: Allergy: allergen immunotherapy						
K	Describes postulated immunological mechanisms of immunotherapy	●				●
	Describes the efficacy and limitations of immunotherapy	●				●
	Describes the principles of selection of suitable patients for immunotherapy	●				●
	States the indications and contraindications for immunotherapy	●				●
	Describes different desensitisation regimens and their relative advantages and disadvantages	●				●
	Explains appropriate monitoring prior to, during and after desensitisation injections	●	●			●
	Explains the advantages and disadvantages of different allergen preparations for immunotherapy (adsorbed, soluble, allergoids, etc)	●				●
	Describes experimental immunotherapy regimens (oral, sublingual, etc.)	●				●
S	Takes a relevant history and performs a relevant examination	●	●			
	Demonstrates knowledge of monitoring	●		●		
	Discusses preparation and administration of allergen vaccines	●		●		
	Discusses appropriate timing and choice of desensitisation regimens	●				●
	Manages trivial and severe reactions, including anaphylaxis	●		●		
	Applies dosage adjustments according to previous reactions	●		●		
A	Chooses regimens to suit individual patients	●	●			●
	Recognises which patients are likely to do well	●	●			●
	Clarifies for the patient what are realistic outcome expectations	●	●			●

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Table 3 11: Allergy: paediatric allergy						
Curriculum area	Competence	CBD	CEX	DOPS	MSF	Exam
K	Explains the special considerations for the management of allergic disease (asthma, eczema, rhinitis, food allergy) in children	●				●
	Describes the dietary requirements of the infant and the child	●				●
	Explains the distinction between IgE-mediated and non-IgE mediated milk allergy syndromes and differential diagnosis from inflammatory bowel disease, lactose intolerance and other congenital and acquired food allergy/intolerance syndromes	●				●
	Describes the management of food allergy/intolerance and the use of milk formulae	●				●
	Explains how to manage paediatric allergy in the community: liaison with key carers (parents, schools, sports)	●	●			●
S	Performs paediatric history and examination, including milestones and centiles	●	●			
	Applies paediatric drug ranges and dosages; particularly for asthma, rhinitis, anaphylaxis	●	●			
	Practises management of paediatric asthma, rhinitis, sinusitis and anaphylaxis management, including inhaler devices	●	●			
	Evaluates manifestations of food allergy, and manages of severe food anaphylaxis in the community	●	●			
	Performs paediatric food challenge	●		●		
	Interprets paediatric bowel investigation, including endoscopy and intestinal biopsy	●				●
	Interprets tests for lactose intolerance	●				●
	Performs paediatric ENT examination, and manages of chronic sinusitis and nasal polyps	●		●		
	Manages paediatric asthma	●	●			●
Communicates with community paediatric teams for management of children at school	●	●				
A	Recognises limitations of expertise when dealing with children	●				
	Respects the fears and wishes of the parents	●			●	
	Contributes to holistic care in the community	●			●	

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Table 3.12: Allergy: unconventional therapies and diagnostic procedures						
K	Describes unproven procedures for allergy diagnosis (Vega testing, leucocytotoxic tests, hair analysis, applied kinesiology, auricular cardiac reflex) and treatment (homoeopathy, enzyme-potentiated desensitisation, hypnosis acupuncture)	●				●
	Describes the principles of “clinical ecology”: diagnosis (Miller technique), diseases (multiple chemical sensitivity, total allergy syndrome, <i>Candida</i> hypersensitivity syndrome) and treatment (neutralisation vaccines, etc)	●				●
	Describes aetiological and psychological facets of chronic (“post-viral”) fatigue syndrome (myalgic encephalomyelitis)	●				●
S	Manages patients who have consulted “alternative allergists” and have been misdiagnosed or given unconventional diagnoses such as <i>Candida</i> hypersensitivity syndrome	●	●			
	Manages patients with ME	●	●			
	Evaluates clinical ecology journals	●	●			
	Evaluates publications from specialist societies for homoeopathy, acupuncture, etc	●	●			
	Discusses position statements regarding alternative allergy from professional societies	●	●			
A	Exhibits a sympathetic and open-minded approach	●	●		●	
	Recognises the limitations of conventional, as well as unconventional therapy	●	●			
	Contributes to holistic approach to dealing with patient’s symptoms and beliefs	●	●		●	

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Table 3.13: Allergy: immunodeficiency						
Curriculum area	Competence	CBD	CEX	DOPS	MSF	KT
K	Describes congenital and acquired immunodeficiency syndromes, including antibody and cell mediated disorders, complement deficiencies and defects in neutrophil function					●
	Outlines the management of intravenous and subcutaneous immunoglobulin therapy, including available preparations	●				●
	Has a working knowledge of the long term management of infections, including opportunistic infections	●				●
	Has a working knowledge of the management of the immunosuppressed patient	●				●
	Describes the principles of vaccination and immunisation	●				●
S	Demonstrates knowledge of genetic basis of immunodeficiency	●				●
	Discusses when to measure immunoglobulins, classes and subclasses	●				●
	Interprets specific antibody titres and responses to vaccination	●				●
	Discusses functional analysis of complement components: CH50, AH50	●				●
	Evaluates cell surface and cytoplasmic markers for assessment of immunodeficiency	●				●
	Interprets lymphocyte function tests	●				●
	Analyses functional assessments of neutrophils and macrophages	●				●
Interprets tests of cytokine production <i>in vitro</i>	●				●	
A	Recognises limitations of expertise	●			●	
	Refers promptly to appropriate specialist where necessary	●			●	