

BPAIIG training modules

Module 1

Infectious Diseases

Perinatal Infection

Congenital infections

Neonatal sepsis

Viral Exanthems

PUO

Respiratory infections, e.g. pneumonia, empyema

CNS infections, e.g. meningo-encephalitis, brain abscess

Bone/joint infections

Cardiovascular inf., e.g. infective endocarditis/myocarditis/pericarditis

Module 2

Immunology

Development of immunity- innate & specific

Host resistance – age related infections

Immunologic responses to infection

Immune deficiency – molecular basis, clinical syndromes, investigations incl. molecular genetic testing

Neutrophil and lymphocyte disorders

Management – e.g., Ig replacement, BMT, gene therapy

Complications in immunocompromised – e.g. lymphoproliferative, malignancy, autoimmune

ESID registry, accreditation

Role of Next Generation Sequencing (100KGP)

(combined adult and paediatric trainees)

Module 3

Introduction/update to general allergy:

Atopy –genetic/environmental factors in development

Mechanisms of allergic sensitivities & tolerance

Food allergy

Skin prick testing/RAST

Challenges

Allergy relevant to PID (more focus):

Urticaria/angioedema

Drug allergy

Monoclonals

Vaccine reactions

Desensitisation

Module 4

Epidemiology & Tropical diseases

Burden of childhood infections in the UK, and worldwide

Surveillance methods, notifications (law)

Outbreak control, contact tracing

Immunisation –new developments, world issues (e.g. polio)

Travel advice for prevention

Emerging infections

Imported infections

Malaria/typhoid/parasitic infections

Refugee health

Module 5

Immunology

Autoimmunity

Immunodysregulatory syndromes, e.g. IPEX, HIGE

Auto-inflammatory disorders, e.g. HLH, Periodic Fever Syndromes

Immunisation - mechanism of action, immunisation in immunocompromised, revaccination post HSCT

Immune deficiency, e.g. Oncology/ICU/steroids (not HIV)

Infections in the immunocompromised child.

Module 6

Microbiology

Microbial classification

Sample collection

Microbiological characteristics (bacteria, fungi, protozoa) – culture methods

Virulence factors

Antimicrobial resistance, MIC's

Viral identification – EM, culture

Non-culture diagnostic tests – Serological, Molecular including PCR

Infection control (MRSA, hazards) in hospital/community

Module 7

Infectious Diseases

Fever

Pathogenesis of infection and injury – bacterial/viral/fungal/protozoa/helminth

Toxin mediated diseases

Sepsis syndrome/shock

Devises/prosthetic materials, e.g. CLABSI

Tuberculous/non-tuberculous mycobacterial infections

GU infections, including STD's

Hepatitis

Module 8

Therapeutics

Anti infectives - pharmacokinetics, action, uses (Rx/prophylaxis), hospital policies, resistance, interactions/ side effects

Antivirals

Antifungals

Immune modulating agents, IVIG

Antimicrobial stewardship/OPAT