

Needs: Local : Pink, National : Orange, Regional: light blue, International : green

(i) New proposed courses: **PDCC in Pediatric Clinical Immunology & Rheumatology**

1. Background of the proposed courses

This issue was discussed in board of studies meeting in 2011 but could not be pursued. In India 45% of the population is less than 15 years and there is only one center running DM program in Pediatric Clinical Immunology & Rheumatology. Thus, we propose to start this course as this will provide a pediatrician enough exposure in Clinical Immunology & Rheumatology to manage these patients well

2. **Need:** In India 45% of the population is less than 18 years and there is only one center running DM program in Pediatric Clinical Immunology & Rheumatology. Our 15-20% patient load is of children less than 18 years. In addition, referrals of primary immunodeficiency have increased steadily.

3. **Required infrastructural facilities beds, space etc.:** None

4. Additional faculty, residents if required

Manpower: One additional post of senior resident (can be taken from floating posts in the interim)

Faculty: 1 faculty with DM Pediatric Clinical Immunology and Rheumatology may be appointed in future on the already available posts and this will be an asset

5. Course curriculum

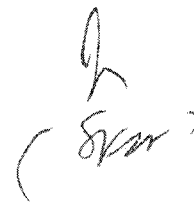
a. Objective:

The goal of this course is to have pediatrician competent to manage patients with immunological and rheumatic disease in hospital and community settings independently and serve as a teacher for training undergraduates/ postgraduates

b. Clinical skills

The objective of this training is to make the trainee learn **the ability to make a working diagnosis in patients with rheumatological and immunodeficiency disease by analyzing the signs and symptoms related to these diseases and to make an investigative plan and reach the final diagnosis.**

1. Detailed history taking in a patient with immunological disease
2. Complete rheumatological examination
3. Rational use and interpretation of immunological tests
4. Interpretation of joint radiology
5. Joint and soft-tissue injections



Lt Col Varun Bajpai VSM
Executive Registrar
SGPGIMS, Lucknow

Colour Coding

Global
Regional
National
Local (State)

GREEN
BLUE
ORANGE
PINK

6. Proficiency in the use of disease modifying anti-rheumatic drugs and immunosuppressive agents and IVIG
7. Advise on basic physiotherapy and rehabilitation needs

c. Theoretical knowledge

I. **Understanding of Basic Immunology**

Structure of the immune system
T cell subsets
TCR, HLA, Ig genes
Antigen presentation and processing
Innate immune system
Generation of adaptive immune response
Cytokines, chemokines and other mediators
Complement pathway
Function of phagocytes, mast cells, basophils and eosinophils
Immune response to microbes
Infections in the immuno-compromised host
Vaccines

II. **Basic Biology of rheumatic diseases**

Anatomy, physiology, biochemistry, pathology, microbiology and serology, and immune response in musculoskeletal health and disease states

Cell biology, Molecular biology, Molecular genetics, Genomics, Pharmacology-pharmacokinetics of rheumatic diseases

IV: **Understanding of basic pathophysiology, diagnosis and management of rheumatic diseases**

- A. **Systemic Lupus erythematosus**
- B. **Juvenile idiopathic arthritis**
- C. **Rheumatic fever**
- D. **Spondyloarthropathies**
- E. **Systemic sclerosis**
- F. **Polymyositis/dermatomyositis**
- G. **Systemic vasculitis**
- H. Soft tissue rheumatism

Lt Col Varun Bajpai VSM
Executive Registrar
SGPGIMS, Lucknow

Colour Coding

Global	GREEN
Regional	BLUE
National	ORANGE
Local (State)	PINK

V: Understanding of basic pathophysiology, diagnosis and management of Primary immunodeficiency diseases

- A. Overall approach to immunodeficiency
- B. Severe combined Immunodeficiency
- C. X-linked agammaglobulinemia
- D. Chronic granulomatous disease
- E. Wiskott Aldrich syndrome
- F. Leucocyte adhesion deficiency
- G. Auto-inflammatory syndromes
- H. Hyper IgE syndrome
- I. Syndromic immunodeficiency

VI. Basis and delivery of Immunological therapies


- A. Anti-inflammatory medications
- B. Immunosuppressive therapy
- C. IVIG therapy
- D. Cytokine-modulatory therapies
- E. Cellular and Gene therapy
- F. Plasmapheresis and experimental immunotherapies

VI. Immunodiagnostics

- A. Evaluating immunological function
- B. Detection of autoantibodies
- C. Flowcytometry
- D. Molecular methods

Clinical posting

Ward and OPD posting	10 months
Elective	01 month
Lab posting	01 month
((Autoantibodies/Immunodeficiency tests/Genetic tests))	


Lt Col Varun Bajpai VSM
Executive Registrar
SCPGIMS, Lucknow

Entry Criteria: MD Pediatrics or equivalent (as in MCI)

Selection process: As per Institute guidelines of an entrance test based on MCQs

ASSESSMENT

FORMATIVE ASSESSMENT during the training includes:

Formative

The formative assessment will include:

- Grades obtained in the presentation done by student during his tenure, i.e seminars, journal clubs, case discussion etc
- Mid-term assessment consisting of a theory paper and clinical case/OSCE
- Mid-term assessment of performance in the clinic, research work

Summative

Post-Graduate Examination

Theory:

There will 2 papers duration of each examination shall be of three hours

Paper – I: Basic Sciences related to Clinical Immunology & Rheumatology

Paper – II: Practice of Clinical Immunology & Rheumatology

Clinical Exam & Viva-voce: 1 Day

The clinical examination will be based on structured and objective evaluation of history taking, examination skills, data interpretation and synthesis of the overall clinical case and its discussion. It will include at least 2 cases.

Viva voce, Laboratory, Radiology, Spots

This will be an objective assessment based on lab data interpretation, radiology spots, histology slides, clinical photographs as well as lab skill assessment. The viva-voce would cover different areas of the specialty to assess the breadth of knowledge of the student in the specialty.

Amul

ck

R

10/11/10

Varun Bajpai

Lt Col Varun Bajpai VSM
Executive Registrar
SGPGIMS, Lucknow

Candidates must pass in theory initially by obtaining at least 50% marks in theory to appear for the practical exams. They should pass independently in practical also by obtaining 50 % marks.

Books:

Textbook of Pediatric Rheumatology by Ross Petty

Primary Immunodeficiency diseases: Definition, diagnosis and management By Notrangelo LD

Journals

1. Nature reviews Rheumatology
2. Nature reviews Immunology
3. Pediatric Rheumatology
4. Journal of Clinical Immunology
5. Annals of rheumatic diseases

Examiners

S No	Name	Address
1	Prof Surjeet Singh, Head Department of Pediatrics, Division of Immunology & Allergy, PGIMER, Chandigarh	surjitsinghpgi@rediffmail.com
2	Dr Suma Balan, Professor at Department of Rheumatology, School of Medicine, Kochi.	sumabalan@googlemail.com sumab@aims.amrita.edu
3	Dr Anju Gupta, Professor, Department of Pediatrics, Department of Pediatrics, Division of Immunology & Allergy, PGIMER, Chandigarh	anjupgi@gmail.com

Lt Col Varun Bajpai VSM
Executive Registrar
SGPGIMS, Lucknow