



# **FACULTY OF INTERNAL MEDICINE**



**NATIONAL POSTGRADUATE MEDICAL COLLEGE  
OF NIGERIA (NPMCN) AND WEST AFRICAN  
COLLEGE OF PHYSICIANS (WACP).**

**HARMONISED TRAINING REQUIREMENTS FOR JUNIOR  
AND SENIOR RESIDENCY POSTINGS.**

**JUNE 2021**

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# FACULTY OF INTERNAL MEDICINE

## HARMONISATION OF REQUIREMENTS FOR JUNIOR AND SENIOR RESIDENCY POSTINGS BETWEEN NATIONAL POSTGRADUATE MEDICAL COLLEGE OF NIGERIA (NPMCN) AND WEST AFRICAN COLLEGE OF PHYSICIANS (WACP).

### INTRODUCTION:

The National Postgraduate Medical College of Nigeria (NPMCN) as the regulator of residency training program in Nigeria mandated faculties to harmonise curricula or training requirements for the different stages of the residency training program with our sister College, the West African College of Physicians (WACP).

**OUR TASK:** The assignment given to this committee was to harmonise the following requirements that are mandatory for residency training. These include

- A1. Postings to be completed before part 1
- A2. Duration of these postings
- B1. Numbers of cases required for proficiency in each of the postings
- B2. Procedures to be performed
- B3 Number of procedures required for proficiency
- B4. Seminars number to present
- B5. Tutorials number to lead
- B6. Journal clubs number to present
- B7. Specialties specific

Post Part 1 requirements:

- X1. Postings to be completed post part 1
- X2. Duration of these postings
- Y1. Numbers of cases required for proficiency in each of the postings
- Y2. Procedures to be performed
- Y3 number of procedures required for proficiency
- Y4. Seminars number to present
- Y5. Tutorials number to lead
- Y6. Journal clubs number to present
- Y7. Specialties specific

**PROCEDURE ADOPTED:**

We assembled a very large team of experienced senior teachers and Examiners in both Colleges which include the Faculty Chairmen and Secretaries, Chief Examiners and Chairmen of Curriculum review committees, all subspecialty Chairmen and some past officers (comprehensive list of participants attached). The team critically appraised all the available curricula including that from NPMCN, WACP and West African Health Organisation (WAHO). The required postings and mandatory procedures were discussed and consensus reached on virtually all items discussed. In addition to mandatory minimum requirements for training, the team decided on the gold standard requirements that are desirable and should be implemented by the curriculum review teams of both colleges. If this is adopted and implemented by the Faculty in both Colleges, then we should have a uniform curriculum after the next curriculum review which will be due in the next 2years. Our deliberations covered not only junior residency postings and requirements but also senior residency requirements and subspecialty training in the Faculties. It is our hope that this document will serve as the National adopted curriculum for training in the Faculty of Internal Medicine in Nigeria.

We had several virtual meetings between December 2020 and March 2021 with excellent participation from all members of the team. We equally had break-out sessions for various subspecialty groups that produced the initial subspecialty requirements which was thereafter discussed and further perfected by the entire team before final adoption by the committee.

I on behalf of NPMCN wish to express our profound appreciation to all members of this expanded committee for their commitment, dedication and sacrifice that culminated in the success of the project. I specially appreciate all my teachers and senior Examiners for their excellent contributions and resilience.

Thank you very much.



**Dr. Fatiu A. Arogundade, MD, FMCP, FWACP.**

***Chairman,  
Joint Curriculum Harmonisation Committee.***

## **PARTICIPANTS**

- **DR. F.A AROGUNDADE**
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- **DR V. ANSA**
- **DR. H. YUSUPH**
- **DR. I. NASHABARU**
- **DR. A. MBAKWEM**
- **DR. S.B GARKO**

**CHAIRMAN**  
**SECRETARY**

**SUBSPECIALTIES REPRESENTED**

<b>SUBSPECIALTY</b>	<b>NPMC</b>	<b>WACP</b>
CARDIOLOGY	YES	YES
CLINICAL HAEMATOLOGY	YES	
CLINICAL PHARMACOLOGY AND THERAPEUTICS	YES	YES
DERMATOLOGY & GUM	YES	YES
EMERGENCY MEDICINE	YES	YES
ENDOCRINOLOGY, DIABETES AND METABOLISM	YES	YES
GASTROENTEROLOGY	YES	YES
INFECTIOUS DISEASE AND IMMUNOLOGY	YES	YES
GERIATRICS	YES	YES
NEPHROLOGY	YES	YES
NEUROLOGY	YES	YES
PULMONOLOGY	YES	YES
RHEUMATOLOGY	YES	YES

**HARMONISED JUNIOR RESIDENCY POSTINGS  
(NPMCN AND WACP)**

**HARMONISATION OF JUNIOR RESIDENCY POSTINGS – NPMCN AND WACP.**

	<b>MANDATORY POSTINGS</b>	<b>HARMONISED DURATION (Any 6 of the listed 1-7 postings)</b>
1	Cardiology	3 Months
2	Endocrinology, Diabetes and Metabolism	3 Months
3	Dermatology and Genitourinary medicine	3 Months
4	Gastroenterology	3 Months
5	Nephrology	3 Months
6	Neurology	3 Months
7	Respiratory Medicine	3 Months
8	Accident and Emergency	1 Month
9	Radiology	1 Month
10	Psychiatry	1 Month
11	Laboratory Medicine	2 Months
	Haematology and Blood transfusion	2 Weeks
	Chemical Pathology	2 Weeks
	Microbiology and Parasitology	2 Weeks
	Morbid Anatomy	2 Weeks
<b>12</b>	<b>OPTIONAL POSTINGS / ELECTIVES</b>	<b>1 Month in any ONE</b>
	Clinical Haematology/Medical Oncology	
	Infectious disease and Immunology	
	Clinical Pharmacology & Therapeutics	
	Critical Care/Intensive care medicine	
	Rheumatology	
	Geriatric medicine	

	<b>ACTIVITY</b>	<b>HARMONISED POSTING</b>
1	B1. Numbers of cases required for proficiency in each of the postings	10 in each mandatory posting. 3 in Psychiatry
	No of Case Reports	3 in each mandatory posting including at least one ADR report. 1 in elective posting
	B2. Procedures to be performed	See Below
	B3 Number of procedures required for proficiency	See Below
	B4. Seminars - number to present	1/ posting (1 or more months posting minimum of 10
	B5. Tutorials - number to lead	1/ posting (1 or more months posting minimum of 10
	B6. Journal clubs - number to present	Minimum of 5
	B7. Specialties specific	NA
	<b>Mandatory Courses</b>	<b>DECISION</b>
	Revision / Update Course	2 Mandatory Courses
	Ethics Course	(3 with revision of Curriculum)
	ACLS	

S/N	<b>Procedure (Log - Books)</b>	<b>HARMONISED MINIMUM REQUIRED NUMBERS</b>
1	Abdominal paracentesis	10
2	Allergic skin testing and interpretation	5
3	Arterial blood gases	5
4	Blood culture (aerobic)	10
5	Blood culture (anaerobic)	5
6	Skin snips for microfilaria	5
7	Blood examination for microfilaria	5
8	Blood film preparation and interpretation	20
9	Blood grouping and cross matching	10
10	Blood marrow aspiration and examination	5
11	Urinalysis	20
12	Blood glucose estimation using glucometer	20
13	Creatinine clearance participation and interpretation	5
14	Proteinuria 24 hour quantification (Esbach's)	5
15	Urine microscopy performance	10
16	Urine culture participation	5
17	Basic life support	3
18	Advanced life support	3
19	Central venous line placement (observed)	5



20	Venous cut down	5
21	ECG recording performed	20
22	ECG result interpreted	50
23	Echocardiography observed	10
24	Echocardiography report interpreted	10
25	EEG observed	10
26	EEG interpreted	10
27	Cardioversion	5
28	Endotracheal tube placement	5
29	Management of mechanical ventilation	5
30	Spirometry/Vitalogram performed	10
31	Spirometry/Vitalogram interpreted	10
32	Thoracocentesis	5
33	Tuberculous skin testing performed	5
34	Tuberculous skin testing interpreted	5
35	Exercise stress testing participated	10
36	Exercise stress testing results interpreted	10
37	Peritoneal dialysis participated	5
38	Haemodialysis participated (Sessions)	40
39	Placement of arterial catheter	5
40	Percutaneous renal biopsy	5
41	IVU participated	10
42	IVU interpreted	10
43	Barium radiological studies participation	5
44	Barium radiological studies interpreted	5
45	Oesophagoduodenoscopy participated	5
46	Lower GI endoscopy	5
47	Abdominal ultrasound observed	10
48	Abdominal ultrasound interpreted	10
49	Chest X-ray performance and participation	10
50	Chest X-ray interpretation	10
51	Post mortem examination participation	5
52	Histopathology slide preparation	10
53	Histopathology slide examination	10
54	Blood film for malaria parasite preparation (thick and thin films)	20
55	Sputum: ZN stain performance and examination	10
56	Sputum: Gram stain performance and examination	10
57	Skin biopsy performance	5
58	Skin scraping	10
59	Skin snips	5
60	Liver biopsy performance (observed)	5
61	Liver aspiration performance (observed)	5
62	Joint aspiration (observed)	5
63	Joint injection (observed)	5

64	Haemoglobin electrophoresis: performance	5
65	Haemoglobin electrophoresis interpreted	10
66	Serum protein electrophoresis:observed	5
67	Serum protein electrophoresis: interpreted	10
68	RBC sickling test: performance and interpretation	10
69	Stool microscopy: performance and interpretation	10
70	Lumbar puncture: Performance and manometry	10
71	CSF interpretation	10
72	Holter monitoring observed	5
73	Holter monitoring interpretation	5
74	Temporary venous pacemaker insertion	5
75	Glucose tolerance testing	5
76	Glucose tolerance test interpretation	10
77	Endocrine function test Observed	5
78	Endocrine function test interpretation	10
79	Urethral catheterization	20
80	Fundoscopy	50
81	N-G Tube insertion	20

<b>OTHER MANDATORY REQUIREMENTS FOR JUNIOR RESIDENCY POSTINGS</b>	
	<b>CONSENSUS</b>
SEMINAR PRESENTATIONS	10
TUTORIALS PRESENTATIONS	10
JOURNAL CLUB PRESENTATIONS	5
SUBSPECIALTY SPECIFIC	NOT APPLICABLE

# SENIOR RESIDENCY TRAINING REQUIREMENTS

ThSenior Residency is the final track to specialisation and subspecialisation in the Faculties of Internal Medicine. The overall duration is 36 months which comprises 12 months of general internal medicine and 24 months of subspecialist training in the various subspecialties. These subspecialties include Cardiology, Clinical Haematology, Clinical Pharmacology and Therapeutics, Dermatology and Genitourinary Medicine, Emergency Medicine, Endocrinology, Diabetes and Metabolism, Gastroenterology, Geriatrics, Nephrology, Neurology, Pulmonology and Rheumatology. In addition to the listed requirements in various subspecialties, the trainees are expected to present seminars, lead tutorial discussions, present during journal club meetings, participate in professional Associations, attend conferences and present scientific papers. It is also expected that trainees should publish in peer reviewed scientific journals. The required numbers for these listed requirements are stated below.

## TRAINING REQUIREMENTS THAT APPLY TO ALL SUBSPECIALTIES

OTHER TRAINING REQUIREMENTS	HARMONISED MINIMUM REQUIRED NUMBERS
SEMINAR	20
TUTORIALS	20
JOURNAL CLUB PRESENTATION	10
MEMBERSHIP OF PROFESSIONAL ASSOCIATION	1
CONFERENCE ATTENDANCE	3
CONFERENCE PRESENTATION.	2
JOURNAL PUBLICATION.	2

# CARDIOLOGY

**HARMONISED RESIDENCY POSTINGS  
(NPMCN AND WACP)  
CARDIOLOGY SUBSPECIALTY**

**Table 1: TRAINING TO BE COMPLETED DURATION**

S/N	POSTING	DURATION
		HARMONISED DURATION
1	Pulmonology	3 months
2	Nephrology	2 months
3	Neurology	2 months
4	Endocrinology	2 months
5	Emergency Medicine	2 months
6	Intensive Care Unit (ICU)	1 month
C	CORE CARDIOLOGY	
7	ECG/ECHO	
8	Clinical Cardiology	
9	Cardiovascular Pharmacology & Therapeutics	
10	Preventive Cardiology	
11	Health Advocacy & Preventive Cardiology	24 months
12	Cardiac Radiology/Imaging	
13	Cardiac Catheterisation Lab	
14	Surgical Management of Cardiovascular Diseases (Cardio-Thoracic Surgery)	-
15	Paediatric Cardiology	-
16	Total Duration of Posting	36 Months

**Table 2: Y1: NUMBER OF CASES REQUIRED FOR PROFICIENCY IN EACH OF THE POSTINGS**

S/N	CASES	NUMBER			
		Year 1	Year 2	Year 3	TOTAL
1	Systemic Hypertension	-	25	25	50
2	Heart Failure	-	25	25	50
3	Arrhythmias	-	10	10	20
4	Hypertensive Emergencies	-	10	10	20
5	Acute Pulmonary Oedema	-	10	10	20
6	Acute Coronary Syndrome	-	10	10	20
7	Chronic Coronary Artery Disease	-	5	5	10
8	Degenerative Valvular Heart Disease	-	5	5	10
9	Cardiomyopathy	-	5	5	10
10	Acute Rheumatic Fever/ Rheumatic Heart Disease/ Infective Endocarditis	-	5	5	10
11	Pericarditis and Pericardial Effusion	-	5	5	10
12	Peripheral Artery Disease	-	5	5	10
13	Deep Vein Thrombosis/Pulmonary Embolism	-	5	5	10
14	Aortic Aneurysm/Dissecting Aortic Aneurysm	-	2	3	5
15	Congenital Heart Disease in Adults	-	2	3	5
16	Endocrinology/Cardiology	5	3	2	10
17	Connective tissue Disease with Cardiac Involvement	2	2	1	5
18	HIV/Other Infections with Cardiac Involvement	2	1	2	5
19	Nephrology/Cardiology	5	5	5	15
20	Respiratory/Cardiology	5	5	5	15
21	<b>Total</b>				<b>300</b>

**Table 3: Y2/Y3: PROCEDURES TO BE PERFORMED AND NUMBER REQUIRED FOR PROFICIENCY**

S/N	PROCEDURE	NUMBER			
		OBSERVED	PERFORMED /INTERPRETED	INTERPRETED	TOTAL
<b>A</b>	<b>ELECTROCARDIOGRAPHY &amp; BLOOD PRESSURE</b>				
1	12-Lead Resting ECG	5	25	70	100
2	Exercise Stress ECG.	10	5	5	20
3	Holter ECG	3	2	5	10
4	Ambulatory BP Monitoring	3	2	5	10
<b>B</b>	<b>ECHOCARDIOGRAPHY</b>				
5	Transthoracic Echocardiography	10	90	-	100
6	Stress Echocardiography	5	-	-	5
7	Transesophageal Echocardiography	2	-	-	2
<b>C</b>	<b>RADIOLOGY</b>				
8	Chest X-ray	5	-	15	20
9	Cardiac CT Angiography	2	-	3	5
10	Cardiac MRI	2	-	3	5
<b>D</b>	<b>CRITICAL CARE</b>				
11	Basic Cardiac Life Support	2	5	-	7
12	Advanced Cardiac Life Support	3	2	-	5
13	Defibrillator	2	3	-	5
14	Arterial Cannulation (Femoral & Radial)	5	5	-	10
15	Central Vein Cannulation	3	2	-	5
16	Endotracheal Intubation	3	2	-	5
<b>E</b>	<b>INTERVENTIONAL CARDIOLOGY</b>				
17	Cardiac Catheterisation	5	-	-	5
18	Pace Maker Insertion	2	-	-	2
19	Intracardiac Device Implantation	2	-	-	2
20	Cardiac Surgery	2	-	-	2
<b>F</b>	<b>BIOCHEMISTRY/OTHERS</b>				
21	Troponin	1	-	4	5
22	D-Dimer Determination	1	-	4	5
23	Arterial Blood Gas Analysis	2	-	3	5
24	INR	2	-	3	5
25	Glucometer	-	10	-	10
26	Dialysis	5	-	-	5
27	<b>Total</b>				<b>360</b>

# **Clinical Haematology**



## HARMONISED POSTINGS

### CORE HAEMATOLOGY

### 24 MONTHS

- General Haematology 12 months
- Haemostasis/coagulation 2 months
- Blood Transfusion 2 months
- Laboratory (general) 2 months
- Special Laboratory 4 weeks (desirable)
- Genetic counseling 2 weeks
- Genetics – karyotypic analysis 2 weeks
- Radionuclide, radiological aspects of haematology (investigation and treatment) (Desirable) 4 weeks
- Histopathology posting (bone marrow histology, immunohistochemistry, flow cytometry) (Desirable) 4 weeks
- Automation – coulter, spectrophotometer, POC machines (INR, D- dimer, fibrinogen etc) 4 weeks
- Therapeutic aphaeresis (Desirable) 4 weeks

### General Internal Medicine

### 12 Months

- Emergency Medicine/ICU (3 months)
- Pulmonology (1 months)
- Cardiology (1 months)
- Nephrology (1 months)
- Gastroenterology (1 month)
- Infectious disease (1 month)
- Neurology (1 month)
- Rheumatology (1 month)
- Clinical Pharmacology and Therapeutics (1 month)
- Geriatrics (1 month)

## 4.0 PROCEDURES

### 4.1 MINIMUM NUMBER TO BE PERFORMED

NO	Procedure	Minimum Number
1	BONE MARROW ASPIRATION – PERFORMANCE AND STAINING	50
2	BONE MARROW ASPIRATION – EXAMINATION AND INTERPRETATION	50
3	BONE MARROW TREPINE BIOPSY – PERFORMANCE	30
4	HISTOPATHOLOGY SLIDE PREPARATION	10
5	HISTOPATHOLOGY SLIDE EXAMINATION	10
6	PERIPHERAL BLOOD FILM – PREPARATION AND STAINING	50
7	PERIPHERAL BLOOD FILM – EXAMINATION AND INTERPRETATION	50
8	FULL BLOOD COUNT (MANUAL) - PERFORMANCE	50
9	CYTOCHEMICAL STAINING - PERFORMANCE AND INTERPRETATION	10
10	SICKLING TEST- PERFORMANCE AND INTERPRETATION	30
11	SOLUBILITY TEST - PERFORMANCE AND INTERPRETATION	30
12	HAEMOGLOBIN ELECTROPHORESIS –CELLULOSE ACETATE PAPER /CITRATE AGAROSE GEL METHODS (PERFORMANCE AND INTERPRETATION)	20
13	HAEMOGLOBIN ELECTROPHORESIS – HIGH PERFORMANCE LIQUID CHROMATOGRAPHY (PERFORMANCE AND INTERPRETATION)	10
14	SERUM PROTEIN ELECTROPHORESIS - PERFORMANCE AND INTERPRETATION	10
15	BLEEDING TIME (PT)- IVY'S/TEMPLATE METHODS - PERFORMANCE AND INTERPRETATION	5

16	PROTHROMBIN TIME/ INR - PERFORMANCE AND INTERPRETATION	10
17	PARTIAL THROMBOPLASTIN TIME KAOLIN (PTTK) - PERFORMANCE AND INTERPRETATION	10
18	THROMBIN TIME - PERFORMANCE AND INTERPRETATION	5
19	FIBRINOGEN ASSAY - PERFORMANCE AND INTERPRETATION	5
20	FACTOR ASSAY - PERFORMANCE AND INTERPRETATION	5
21	BLOOD GROUPING AND CROSSMATCH - PERFORMANCE AND INTERPRETATION	20
22	PREPARATION OF BLOOD COMPONENT - PERFORMANCE PLATELET CONCENTRATE  FRESH FROZEN PLASMA  CRYOPRECIPITATE  RED CELL CONCENTRATE	20
23	CENTRAL VENOUS LINE PLACEMENT - PERFORMANCE	10
24	OESOPHAGASTRODUODENOSCOPY PARTICIPATED	5
25	LOWER GI ENDOSCOPY – PARTICIPATED	5
26	JOINT ASPIRATION – PERFORMANCE	10
27	JOINT INJECTION – PERFORMANCE	10
28	AUTOMATION/POINT OF CARE MACHINES– PERFORMED (COULTER, INR, D- DIMER, TROPONIN etc)	50
29	IMMUNOHISTOCHEMISTRY – OBSERVED/PERFORMED	10
30	APHAERESIS – OBSERVED/PERFORMED	5

# Clinical Pharmacology and Therapeutics

### CPT NPMCN/WACP Curriculum Harmonization

<b>POSTINGS</b>	<b>HARMONISED DURATION</b>
Core Clinical Pharmacology	18
Specialised Laboratory Postings in Pharmaceutical research lab (NIPRID and NIMR)	2
Pharmacology lab for animal experiments	1
Drug information and Pharmacovigilance Unit	1
Pharmaceutical industry (with a plant)	1
National regulatory authority	1
General Medicine	12
	36

\*Pain Relief Clinic - Incorporate next curriculum revision

### General medicine

<b>Subspecialty</b>	<b>Duration (months)</b>
Cardiology	1
Pulmonology	1
Gastroenterology/Hepatology	1
Nephrology	1
Geriatrics	1
Neurology	2 Weeks
Rheumatology	2 Weeks
Dermatology	2 Weeks
Emergency Medicine	1
Infectious Diseases	1
Intensive Care (ICU and Coronary Care Units)	2
Therapeutics (inclusive of peculiarities to pregnancy and lactation, paediatrics, Surgery and Vaccines)	1.5

## Core competences

- Critical evaluation of relevant literature in Pharmacology including Clinical trials and meta analysis
- Use of knowledge of drug action to extrapolate likely effect of new drugs, doses and drug combinations
- Use of knowledge of CPT principles to advise on appropriate dosing regime to optimise drug effect
- Knowledge of use of medicines in special populations such as: drug use in elderly population, patients with chronic kidney diseases, patients with chronic liver diseases, drug use in pregnancy and in children
- Knowledge of rational use of / Prescription writing and prescription of medicines in various clinical states and for age spectrum.
- Essential Medicines Concepts: history, principles of selecting medicines of choice in common disease states; standard treatment guidelines, national formulary
- Collaboration in devising policies for rational, safe and cost-effective prescription of medicines
- Process of new drug development and approval. Preclinical development and testing phase I through phases III and IV clinical trials. Development of study protocols.
- Conduct of a clinical trial- informed consent, ethics of clinical research, Good Clinical Practice, Good Laboratory Practices
- Understanding the prevailing legal frame work: extant laws, regulations and policies regarding drugs in the country
- Understanding the factors determining the pattern of use of medicines in the population
- Knowledge and application of the entire concept of Pharmacovigilance ensuring medicine safety.
- In-depth knowledge and participation in the surveillance system detecting, reporting and managing case reports on adverse reactions, medication errors, substandard drugs etc
- Advise on cases of drug overdose or poisoning and management of such cases
- Be familiar with the working of ethics committee and adequate knowledge of research ethics
- Knowledge and application of medical statistics
- Comprehensive knowledge of General and Systemic Pharmacology

***Skills/ Competencies***

Postings	Procedures	Expected Activity	Harmonised Minimum
Federal Ministry of Health	Drug Related Policies and Guidelines Pharmaceutical Systems	Study and Report on processes of formulation/development	3 1
Drug Regulatory Authority	Drug Registration/ Licensing  Laws and Regulations Monitoring of Drug Safety in the Country Pharmacovigilance System	Observe/ Study and Report on Process  Study Processes and provide a comprehensive report	3 recently licensed drugs  1
Pharmaceutical Industry (with Functional Plant)	Quality Assurance measures, Packaging Drug Safety Measures (Pharmacovigilance in Industry)  QPPV interphase	Study Processes and report  Pharmacovigilance Inspection - Observe  Evidence of interaction	1  1  2 sessions
Institutional Review Board/Ethics Committee  Clinical Trials	Data collection and analysis  Pharmacodynamic measurements related to subspecialties of interest  Ambulatory BP measurements, ECG	Evidence of sitting in a meeting of a properly constituted Board/Committee Lead / Participate    Perform and report	4 sessions  2  2 Subspecialties  2  10

Drug and Poisons Information	Receipt and processing of information request	Documented evidence	15
Pharmacovigilance	Report  ADR/Medication Errors etc Entry into vigiFlow and vigiLyze	Documentation of report	20 reports  15
Clinical Rotations	Causality Assessment + Signal detection/ review Therapeutic Challenges in Specialties	Process Process Documented evidence Participate and report on cases	2  10 Illustrative cases
Management of: Adverse reactions to medicines	Rational use of Medicines	Drug Use Audit/Review	2 different drugs/ formulation
Common Poisonings/Envenomation	Anaphylactic reactions Drug induced Organ involvement e.g GI haemorrhage, Kidney injury, seizures, skin (SJS, TENS) etc Hypnotosedatives, Organophosphates, Paracetamol, Antidepressants /Antipsychotics Petroleum distillates Carbon Monoxide, Herbal remedies etc  Snake bites Bee Stings Scorpion Stings	Participate in Management          Observe/Manage          Observe and report as feasible	10 Illustrative cases (1 per organ)          10 Illustrative case report (1 per drug)          2 case reports each External posting in a Centre for management of Envenomations



Postings	Procedures	Expected activity	Minimum	
Pharmacological Laboratory (animal experiments)	In vivo (rat, guinea pig) experiments  In vitro (Cell, and Tissue + Isolated Organs)	Observe(O)	4 experiments  5 systems	
Laboratory (human studies) Pharmacokinetic studies	Sample Collection and Preparation Analytical Methods HPLC Spectrometry Radioimmunoassay Etc  Pharmacokinetic analysis	Observe/Perform  Observe/Perform In 4 full Assays  Obtain data following assay and analyse for parameters	5 different drugs 4 full Assays  Two drugs	Teaching Hospitals Pharmaceutical Industries NIPRID NIMR Other certified Laboratory Out of Country exposure
Therapeutic Drug Monitoring	Drug profile Assay techniques	Observe and interpret results	5 different drugs	

# Dermatology

<b>POSTINGS</b>	<b>HARMONISED DURATION</b>
Dermatology 1	12
Gen Medicine	12
Dermatology 2	12
Dermatology (Total)	24
Total Pre-part 2	36
Gen Medicine and other Postings(Weeks)	
Pulmonology	0
Neurology	4
Nephrology	4
Endocrinology	4
Gastroenterology	0
Rheumatology	8
Clin. Pharmacology	4
Cardiology	0
A and E + ICU postings	12
Microbiology+Parasitology	4
Immunology + Clin Haem.	4
ID/HIV Medicine	4
Total	48(52)
Dermatology Postings (96 WEEKS or 24months)	
Dermatopathology*	8
STI	8
Pediatrics Derm#.	12
Plastic and reconstructive surgery & Aesthetic(Cosmetic) Medicine including laser	8(4+4)
*Dermatopathology and STI: In centers where there is no Dermatopathology and STI clinic the resident must go to an accredited centre.	
# Paediatric Derm: where the pediatric dermatology unit exists and is separate from the Adult Dermatology Unit	

\*Dermatopathology as part of Dermatology Period

#Pediatrics Dermatology where pediatrics Derm Clinic is separate from Derm Clinic

\*Where Cosmetic dermatology is feasible 4 weeks from PRS

	<b>HARMONISED MINIMUM REQUIRED NUMBERS</b>
GEN Med postings	5cases relevant to Dermatology/4wk posting 10 cases in Rheumatology
Dermatology posting modules	
Dermatosis caused by parasites arthropods and hazardous animals	15
PRS	20
Microbiology	15
Dermatitis and Eczema	15
Superficial and deep Mycosis	15
Papulosquamous disorders	15
CTD, PVD, Necrotizing Vasculitis	10
Disorders of Hypersensitivity, photodermatitis and inflammation	10
Hair and Nail Disorders	15
Viral and rickettsial infections	15
Leprosy and other Mycobacterial infections of the skin	15
Acne and Acneiform Eruptions	15
Vesicubullous diseases	15
Genodermatosis	10
HIV/AIDS	15
Bacterial skin infections	20
Skin Tumours	20
Treponematoses and Nontreponemal diseases	10
Misceleaneous(Rare dermatosis)	10
Skin Manifestations of Systemic diseases	10

Y2

	<b>PROCEDURES</b>	<b>HARMONISED MINIMUM REQUIRED NUMBERS</b>
1	Skin Biopsy (Incisional/Excisional)	20
2	Skin snips	5
3	Skin Scrapings	30
4	Skin Slit & Smear	5
5	Lumpectomy	10
6	Shave Exicion	10
7	Nail Surgery	3

8	Curettage	10
9	Electrocoagulation	10
10	Cryosurgery	10
11	Intralesional Inj including Dermajet	10
12	KOH Examination	30
13	Wet Prep	10
14	Woods Exam	10
15	Gram Stain	10
16	Patch test	10
17	Lepromin test	Optional
18	Prick Test	Optional
19i	Histopathology Processing of specimens & staining including special stain e.g. immunofluorescent	10
ii	Interpretation of dermatopathology slides	20
iii	Tzanck smears (viral pustules etc.)	5
20	Interpretation of Mycology cultures	10
21	Wound Care	5
22	Iontophoresis/	5
23	Phototherapy	5
24	Laser therapy	3

# EMERGENCY MEDICINE

**Harmonized Emergency Medicine Residents' Portfolio: Postings and Procedures**

**Postings**

<b>S/N</b>	<b>Postings</b>	<b>HARMONISED DURATION</b>
1	Emergency Medicine	6mths – 1yr
2	Critical Care/ICU	4 months
3	Coronary Care Unit/Cardiology	6 weeks
4	Acute Stroke Unit/Neurology	4 weeks
5	Nephrology	6 weeks
6	Pulmonology	6 weeks
7	EDM	6 weeks
8	Dermatology	4 weeks
9	Gastroenterology	4 weeks
10	Rheumatology	4 weeks
11	Infectious Disease	8 weeks
12	Geriatric Medicine	4 months
13	CPT	4 weeks
14	ENT	N/A
15	Trauma	N/A
16	Cardiothoracic Surgery Unit	N/A
17	Radiology	N/A
18	Special Skills training	4 months

## Procedures and Minimum Requirements for Proficiency

		PROCEDURES	HARMONISED NUMBERS FOR PROFICIENCY
Y1	Numbers of cases required for proficiency in each of the postings		Emergency Med- 100 Critical Care- 50 For 1 month posting- 10 For 6 weeks postings- 15 For 3 month posting- 20
Y2 & Y2	Procedures and Minimum number required for proficiency		<b>Number</b>
		Naso-gastric intubation	10
		Endotracheal intubation / Airway management	50
		Placement of central venous lines (Arterial and venous including central line)	50
		Arterial line placement	20
		Wound closure / Care	20
		Abscess incision and drainage.	10
		Tracheostomy tube placement	10
		Ultrasound-guided pericardiocentesis	10
		Tube thoracostomy	20
		Swan-Ganz catheter placement (Observed)	5
		Transvenous cardiac pacing	10
		Arterial blood gasses (Performance and Interpretation)	25
		Defibrillation and cardioversion	20
		Fracture and dislocation reduction and immobilization	10



		Local and regional anaesthesia	10
		BIPAP and CPAP	20
		CT scan/MRI interpretation	CT- 20 MRI- 20
		ECG interpretation	20

# ENDOCRINOLOGY DIABETES AND METABOLISM

**EDM SUBSPECIALTY POSTINGS EDM SUBSPECIALTY HARMONISED CURRICULUM**

A	GENERAL MEDICINE POSTINGS	DURATION 12 MONTHS	
		HARMONISED DURATION	REMARKS
i	Renal medicine	1 month	Minimum to be logged
ii	Dermatology	1 month	
iii	Neurology	1 month	
iv	Cardiology	2 months	
v	Gastroenterology	1 month	
vi	Pulmonology	1 month	
vii	Infectious Disease	1 month	Cumulative / aggregated; Minimum to be logged
viii	CPT	1 month	
ix	Accident & Emergency/ICU	3 months	
<b>B</b>	<b>OTHER POSTINGS THAT ARE EDM SPECIFIC – 4 months</b>		
1	Ophthalmology	1 month	To include 20 Fundoscopies, 2 laser therapy, Perimetry, IOP, Cumulative courses in thyroid and diabetic eye complications
2	<b>RADIOLOGY/ RADIOLOGICAL SPECIALTIES</b>		
i	Radiology	2 weeks	Cumulative. Include at least 2 each of Endocrine USS, CT, MRI
ii	Nuclear Medicine/ Radiotherapy	2 weeks	To include isotopic studies of thyroid. Cases may be cumulative
	<b>3. LABORATORY POSTINGS</b>		
i	Chemical Pathology / To include Immunoassays	1 month	Include seminars and prescribed procedures
ii	Histopathology	1 week	May be cumulative; include FNAC, Thyroid histology, pituitary
iii	Comparative Endocrinology	1 week	lab animal procedures and seminars, may be cumulative

4	Paediatric Endocrinology	2 weeks	Clinics, seminars, cumulative				
C	<b>CORE ENDOCRINE – 20 MONTHS</b>						
	<b>COMPETENCIES</b>	To Include the following DURING THE PERIOD					
i	Reproductive endocrinology (Gynae clinic, ANC, Labour Ward,	1 month	1 month	5 cases	C u m u l a t i v e	Cumulative - Cases to include 5 diabetes in pregnancy, Assisted fertilisation	
ii	Perioperative Endocrine management of Surgical Cases to include - General Surgery, Neurosurgery, Orthopaedics	3 weeks	3 weeks	10 cases	C u m u l a t i v e	Cases to include 5 thyroid disorders; 1 each of parathyroid, adrenal; pancreas. Pituitary and DMFS	
iii	Dietetics and nutrition clinic	2 weeks	2 weeks	10 sessions	C u m u l a t i v e	Cumulative 10 sessions	
iv	Diabetes Education	2 weeks	2 weeks	10 sessions	C u m u l a t i v e	To do 10 sessions	

**EDM SUBSPECIALTY PROCEDURES**

		HARMONISED POSTING	REMARKS
<p><b>Basal Endocrine/ Other dynamic Tests and metabolic tests. - During all postings</b></p>			
	<p><b>ADRENALS</b></p> <p>ACTH Stimulation Test/ Short Synacthen Test</p> <p>Dexamethasone Suppression Test –</p>	<p>Perform - 2 Observe- 4</p> <p>Performed - 2;  Observed - 4</p>	<p>To be logged in as Performed (P); Observed (O) and Interpreted (I)</p>
	<p><b>TEST FOR GLUCOSE</b></p>	<p>Performed (20)</p>	

	Oral Glucose Tolerance Test		To be logged in as Performed (P); Observed (O) and Interpreted (I)
	SEMEN ANALYSIS –	Observed/ Interpreted (5)  Performed (5)	To be logged in as Performed (P); Observed (O) and Interpreted (I)
	THYROID FUNCTION TESTS –	Observed / Interpreted (25)	To be logged in as Performed (P); Observed (O) and Interpreted (I)
	Water Deprivation Test –	Performed 1 Assisted/ Observed (2)	To be logged in as Performed (P);

	Bone Density Test –	Observed (5)	Observed (O) and Interpreted (I)  Cumulative on virtual live streaming/ Online course
	Immunoassays: Types, Principles of the various types	Perform 10; Observed (10)	Hands on during posting in Chemical posting OR running the assays for dissertation
	Diabetes Foot assessment	Performed - 50	All sources
	Thyroid FNAC	5 (P, A, I)	Follow up cytology
	Orchidometry	Performed - 20	All ages
	Hirsutism evaluation	5	All sources.
	Special anthropometry/nutritional assessment	10	Include MUAC, the hospitalised, Metabolic syndrome

# **GASTROENTEROLOGY/ HEPATOLOGY**



**GASTROENTEROLOGY/ HEPATOLOGY SUBSPECIALTY  
 ROTATION SCHEDULE (36 months) HARMONIZED GASTROENTEROLOGY/ HEPATOLOGY  
 CURRICULUM (NPMCN/WACP/ WAHO)**

**ROTATION SCHEDULE /Expected duration**

<b>THEME</b>	<b>HARMONISED DURATION</b>
General Hepatology	7MONTHS
General Gastroenterology	7MONTHS
Gastrointestinal Endoscopy	6MONTHS
GI and liver Histopathology	1MONTH
GI radiology	1MONTH
Gastrointestinal/General Surgery	1MONTH
Lab medicine (Chem Path (2 Weeks), Micro biology (1 Week) and Haematology (1 Week))	4 weeks
General Medicine: Endocrinology, Infectious diseases, Renal medicine & Neurology, Pulmonology GM Rotation	TOTAL OF 12 MONTHS CONSISTING Endocrinology, Infectious diseases, Renal medicine & Neurology -2 months each. Pulmonology -1 Month,
emergency medicine Emergency /ICU Medicine	Emergency /ICU Medicine - 3months

**GASTROENTEROLOGY/ HEPATOLOGY SUBSPECIALTY EXPECTED CLINICAL COMPETENCIES. (SKILLS to be learnt and competencies expected to be acquired).**

**SKILL COMPETENCY HARMONISED POSTING**

Liver biopsy.	P	10
FNAC	P.O	10
Abd. US	P.I	20
US guided procedure	P	VARIABLE
Abscess drainage	P	5
Percutaneous Alcohol Injection		
Liver Tumour Ablation using Radio frequency (RFA)	P.A.O	VARIABLE
Barium studies	O	
	O	20

Abdominal paracentesis: a.	P	10
diagnostic	P	20
b.therapeutic		
Lithotripsy		
<b>Basic Upper &amp; Lower Endoscopy</b>		
EGD	P	50
Colonoscopy	P	20
Stool microscopy.	P	10
<b>Advanced Upper and Lower Endoscopy (Therapeutic Endoscopy) Skill Competency</b>		
Variceal banding/Injection	P.A	VARIABLE
Injection of peptic ulcers	P.A	VARIABLE
Dilatation of esophageal Strictures	P.A.O	VARIABLE
Foreign bodies in UGI retrieval	PAO	VARIABLE
Percutaneous enteral gastroscopy placement	P.A.O	VARIABLE
Polypectomy	PAO	VARIABLE
<b>OTHER PROCUDRES IN GI</b>		
<b>OTHER PROCUDRES IN GI</b>		
Endoscopic Retrograde Cholangio-Pancreatography	AOI	VARIABLE

Endoscopic US	AOI	VARIABLE
Esophageal and rectal manometry	AOI	VARIABLE
24hr Ambulatory pH monitoring	AOI	VARIABLE

**P= PERFORMED. A=ASSISTED. O= OBSERVED. I= INTERPRETED**

**Variable: Specify numbers needed.**

**OTHER POSTINGS.**

**RADIOLOGY.** Barium series - Swallow, Meal and follow through, Enema. Upper Abdominal ultrasound. CT Scan Percutaneous Ultrasound or CT-guided procedures of the liver. Abdominal Magnetic Resonance Imaging: MRI, MR-Cholangio-Pancreatography.

**LABORATORY POSTINGS.** (Chem Pathology; Haematology; Microbiology) LFTs Serum protein electrophoresis. Ascitic fluid evaluation. Coagulation tests (platelet count, Prothrombin time) Viral Serology relevant to GI and Hepatology (HB Viral markers, HCV RNA, HCV Antibody) . MORBID

**ANATOMY AND HISTOPATHOLOGY.** Relevant basic and immunohistochemistry stains for the liver and GI tract. Liver and Intestinal pathology (relevant) biopsy specimen. Aspiration cytology. Abdominal post-mortem.

**Miscellaneous.** Rotation in appropriate accredited center.

Short period of exposure in another center (for facility not available in his/her center).

Notification to Faculty for Overseas training.

Periodic review of Log Book.

Formal review of case reports

# GERIATRICS

**CURRICULUM FOR SENIOR RESIDENCY IN GERIATRIC MEDICINE, WITH  
REQUIRED COMPETENCIES**

Postings	HARMONIZED Curriculum
<b>CORE GERIATRICS</b>	
	<b>24 months (Minimum of 16 months in a Geriatrics Unit)</b>
Psychogeriatrics	<b>1 month</b>
End of Life Care & Palliative Care	<b>1 month</b>
Home-based Care	<b>1 month</b>
Nursing Care Facility	<b>1 month</b>
Physiotherapy	<b>1 month</b>
Occupational Therapy	<ul style="list-style-type: none"> <li>• 2 weeks each in Physiotherapy &amp; Occupational Therapy</li> <li>• (exposure in Dietetics and Medical Social Services during</li> </ul>

	the core Geriatrics rotation)
Burns & Plastic Surgery	<b>1 week</b>
Ear, Nose & Throat	<b>1 week</b>
Ophthalmology	<b>2 weeks</b>
Dental & Oral Hygiene (Family Dentistry)	<b>2 weeks</b>
Urology	<b>1 week</b>
Orthopaedics	<b>1 week</b>
Haematology & Oncology (H&O)	<b>1 week</b>
<b>GENERAL INTERNAL MEDICINE (12 months)</b>	
Clinical Pharmacology & Therapeutics	<b>3 weeks</b>
Cardiology	<b>1 month</b>
Pulmonology	<b>1 month</b>
Nephrology	<b>1 month</b>
Dermatology	<b>1 month</b>
Endocrinology	<b>1 month</b>
Gastroenterology	<b>1 month</b>
Rheumatology	<b>1 month</b>
Neurology	<b>1 month</b>

		<ul style="list-style-type: none"> <li>• <i>One day a week in a neurosurgical unit</i></li> </ul>	
Emergency Room Medicine		<b>3 months</b>	
Intensive Care Unit		<b>1 week</b>	
<b>S/N</b>	<b>Domain</b>	<b>Practical Skills</b>	<b>Minimum Number</b>
•	Medical care of Patients	<ul style="list-style-type: none"> <li>• Family Meetings</li> <li>• Comprehensive Geriatric Assessment</li> <li>• Medication Reviews</li> <li>• Discharge Planning</li> </ul>	20 30 50 50
•	Multidisciplinary Team Care	• Case Reports	5
•	Assessing Walking Speed/Balance	<ul style="list-style-type: none"> <li>• Berg Balance test</li> <li>• Timed Up and Go test (TUG)</li> </ul>	30 30
•	Assessing Risk of Falls	• Falls Risk Assessment	20
•	Assessing Hearing	<ul style="list-style-type: none"> <li>• Hearing Handicap Inventory for the Elderly Screening Version (HHIE-S)</li> <li>• Whispered Voice Test</li> <li>• Finger Friction test</li> <li>• Interpret Audiometry Reports</li> </ul>	10 20 20 2

<ul style="list-style-type: none"> <li>Assessing Nutrition/Weight Loss</li> <li>Assessing Oral Health</li> </ul>		<ul style="list-style-type: none"> <li>Mini Nutritional Assessment</li> <li>Malnutrition Universal Screening Test</li> <li>Nutrition Screening Initiative</li> <li>Assessment of Current Oral Hygiene</li> <li>Oral Health Assessment Tool for Dental Screening (OHAT)</li> </ul>	<p>50 20</p> <p>10</p> <p>20 10</p>
<ul style="list-style-type: none"> <li>Screening for Pain</li> <li>Assessing Risk for Pressure Ulcers</li> </ul>		<ul style="list-style-type: none"> <li>Faces Pain Scale</li> <li>Functional Pain Scale</li> <li>Numeric Rating Scale</li> <li>Pain thermometer</li> <li>Braden Scale for Predicting Pressure Ulcer Risk</li> </ul>	<p>50 20 50 50</p> <p>50</p>
<ul style="list-style-type: none"> <li>Assessing Vision</li> </ul>		<ul style="list-style-type: none"> <li>Snellen Eye Chart</li> <li>Observe Eye Pressure Evaluation</li> <li>Perform Eye Pressure Evaluation</li> </ul>	<p>10 10 2</p>
<ul style="list-style-type: none"> <li>Functional Assessment</li> </ul>		<ul style="list-style-type: none"> <li>Barthel Index of Activities of Daily Living</li> </ul>	<p>50 20</p>



		<ul style="list-style-type: none"> <li>• Katz Index of Activities of Daily Living</li> <li>• Geriatric Health Questionnaire</li> <li>• Palliative Performance Scale</li> </ul>	20 20
• Delirium screening		• Confusion Assessment Method	50
• Cognitive Assessment		• Clock Drawing Test	50
		• Mini Mental State Examination	50
• Screen for Depression		• Geriatric Depression Scale	30
• Identifying Elder Mistreatment		• Elder Mistreatment Assessment	50
• Caring for Caregivers		• The Burden Interview	20
• Medication Management		• Beers Criteria for Potentially Inappropriate Medication Use in Older Adults	50 50
		• Screen Tool of Older Persons' Prescriptions	

		(STOPP) and Screening Tools to Alert to Appropriate Treatment (START)	
•	Orthopaedics/Rheumatology	<ul style="list-style-type: none"> <li>Intraarticular Injections <ul style="list-style-type: none"> <li>Observed</li> <li>Performed</li> </ul> </li> </ul>	5 2
•	Cardiology	<ul style="list-style-type: none"> <li>Electrocardiogram (Performed and Interpreted)</li> <li>Echocardiography (Observed)</li> <li>Ambulatory ECG (where available)</li> </ul>	10 10 Optional
•	Pulmonology	<ul style="list-style-type: none"> <li>Lung Function test (Observed, Interpreted &amp; Reported)</li> </ul>	5
•	Neurology	<ul style="list-style-type: none"> <li>Brain CT Scan &amp; Brain MRI (Interpreted and Reported)</li> </ul>	10 each
•	Endocrinology	<ul style="list-style-type: none"> <li>Thyroid Function Tests (Interpreted and Reported)</li> </ul>	10

# **INFECTIOUS DISEASES**

S/No	Posting	HARMINISED DURATION (weeks)
<b>Core ID Posting (24 Months)</b>		
1	ID Consultations	16
2	HIV Medicine	20
3	Clinical Microbiology	6
4	Antimicrobial Pharmacology	6
5	Travel/International Health	4
6	HAI/ IPC*	16
7	EIDs/Epidemiology	8
8	Advanced HIV/Venereology	10
9	Clinical Immunology	6
10	Leprosy and skin infections	4
<b>General Internal Medicine (12 Months- Including 3 months in A&amp;E)</b>		
11	Pulmonology	6
12	Cardiology	6
13	Neurology	6
14	Nephrology	6
15	Endocrinology	6
16	Gastroenterology	6
17	Clinical Hematology OR Rheumatology	6
18	Clinical Pharmacology/ Therapeutics	6
19	A&E/ICU	12

\*HAI = hospital associated infections, IPC = Infection prevention and control, EIDs = Emerging Infectious Diseases

S/No	Procedures	HARMONISED MINIMUM NUMBERS
1	Tuberculin skin test	20
2	X-rays and CT scans	50
3	Gram's stain	20
4	TB GeneXpert	20
5	Echo	5
6	Rectal snips	10
7	Lumbar puncture	20
8	Thoracocentesis	10
9	Abdominal paracentesis	20
10	Lymph node biopsy	10
11	Serologic tests	50
12	Bacteriology/mycology	15
13	ID Cases Managed	15
	Total	

# NEPHROLOGY

## NEPHROLOGY SUBSPECIALTY POSTINGS

	<b>HARMONISED DURATION</b>
<b>GEN INT MED- 12 MONTHS</b>	
<b>A&amp;E/ICU MEDICINE</b>	<b>3 MONTHS</b>
<b>CARDIOLOGY</b>	<b>3 MONTHS</b>
<b>INFECTIOUS DISEASE AND IMMUNOLOGY</b>	-
<b>OTHER SPECIALTIES</b>	<p><b>2 MONTHS IN 4 OTHER SPECIALTIES</b></p> <p><b>Note:</b> 12 Months of General Medicine including 3 Months of Cardiology and 3 Months in another Subspecialty ( ICU Medicine or Infectious Disease and Immunology), and 2 months each in 3 other subspecialties</p>
	<b>NPMCN</b>
<b>SUBSPECIALTY POSTINGS</b>	
<b>NEPHROLOGY SUBSPECIALTY</b>	
GENERAL NEPHROLOGY	<b>12 MONTHS</b>
HAEMODIALYSIS	<b>3 MONTHS</b>
CAPD	
TRANSPLANTATION	<b>3 MONTHS</b>
NEPHROLOGY IN SPECIAL GROUPS	<b>3 MONTHS</b>
<b>LABORATORY POSTING</b>	<b>3 MONTHS</b>
CHEMICAL PATHOLOGY	<b>1 MONTH</b>
RADIOLOGY	<b>1 MONTH</b>
HISTOPATHOLOGY	<b>1 MONTH</b>
MICROBIOLOGY	-
Y1. Numbers of cases required for proficiency in each of the postings	The posting in general medicine shall be made up of 3 months of cardiology posting and at least 2 months in any of 4 other major subspecialties of Internal Medicine.
Y2. Procedures to be performed	
Y3 number of procedures required for proficiency	
Y4. Seminars number to present	
Y5. Tutorials number to lead	
Y6. Journal clubs number to present	
Y7. Specialties specific	

## NEPHROLOGY SUBSPECIALTY PROCEDURES

S/N	PROCEDURE (LOG - BOOKS)	HARMONISED MINIMUM REQUIREMENTS
	<b>GENERAL NEPHROLOGY / TRANSPLANT POSTING</b>	
1	Nephrology Case Management - ? Case Reports (Different Domains – AKI, CKD, GN, Fluid and Electrolytes, Acid –base balance, RRT, Hereditary Nephropathies, Tropical Nephropathy, Nephrology in Special Groups etc)	80
	Nephrology Case Reports	10
2	Haemodialysis Sessions –Acute	100
3	Haemodialysis Sessions –Maintenance	50
4	Renal biopsies – Performed	10
5	Central Catheterization (Femoral, Jugular / Subclavian)	40
6	Central Catheterization – Tunneled	5
7	Acute Peritoneal Dialysis – Performance	10
8	CAPD Management	5
9	Haemofiltration	5
10	Plasmapheresis	5
11	Renal Histopathology interpretation	30
12	Preparation of Transplant patients	10
13	Management of Transplanted Patients	30
	<b>CARDIOLOGY POSTING</b>	
14	Echocardiography observed	10
15	Echocardiography report interpreted	10
16	ECG recording performed	20
17	ECG result interpreted	50
	<b>RADIOLOGY POSTING</b>	
18	IVU participated	10
19	IVU interpreted	20
20	Renal Ultrasonography	20
21	Abdominal ultrasound observed	10
22	Abdominal ultrasound interpreted	10
	<b>HISTOPATHOLOGY POSTING</b>	
23	Post mortem examination participation.	5
24	Histopathology slide preparation	10
25	Histopathology slide examination	10
	<b>OTHERS</b>	
26	Urethral catheterization	20
27	Urine Microscopy – Performed	50

# NEUROLOGY



## NEUROLOGY SUBSPECIALTY HARMONISED CURRICULUM, NPMCN/WACP

POSTING	HARMONISED DURATION
CORE NEUROLOGY	18months ( first 12 months and last 6 months)
EMERGENCY MEDICINE	3months
CRITICAL CARE/ICU	1month
OTHER INTERNAL MEDICINE SUBSPECIALTY	3months
PSYCHIATRY	2months
EEG/CLINICAL NEUROPHYSIOLOGY	3months
Neurosurgery	2months
Neuropathology	1month
Neuroradiology	1month
Ophthalmology	1month
ENT(Otorhinolaryngology)	1month

### PROCEDURE

### MINIMUM REQUIRED

### RECOMMENDED

<ul style="list-style-type: none"> <li>Minimum number of cases required for proficiency</li> </ul>	280 (at least 4 per week)	Both in and out patients combined under the supervision of a Consultant
<ul style="list-style-type: none"> <li>Minimum procedures to be performed                             <ul style="list-style-type: none"> <li>EEG(reported) 24</li> <li>EEG(recording supervised) 10</li> <li>EMG/NCS(observed) 10</li> <li>Lumbar puncture 20</li> <li>EVD(observed) 5</li> <li>Brain cut up sessions(observed) 5</li> <li>Performed 2</li> <li>40</li> <li>vii. Brain CT reported 20</li> <li>viii. Brain MRI reported 20</li> <li>ix. Spine MRI reported 20</li> </ul> </li> </ul>		To include ECG, ECHO, Ambulatory ECG as part of procedures in view of relevance to specialty

<ul style="list-style-type: none"> <li>x. Carotid Doppler(observed and reported)</li> </ul>	20	
<ul style="list-style-type: none"> <li>xi. CTA/MRA reported</li> <li>xii. Other imaging reported like PET/SPECT, MRI Spectroscopy and Tractography(reported)</li> </ul>	10	

# PULMONOLOGY

**NPMCN/WACP HARMONIZED PULMONOLOGY RESIDENTS' TRAINING REQUIREMENT: POSTINGS AND PROCEDURES**

POSTINGS

S/N	POSTINGS	HARMONISED DURATION
1	1 <sup>ST</sup> CORE PULMONOLOGY+ LAB MEDICINE (12 WEEKS)	12MONTHS
	CARDIOLOGY	2MONTHS
	GASTROENTEROLOGY	2WKS
	NEPHROLOGY	2WKS
	NEUROLOGY	4WKS
	ENDOCRINOLOGY	2WKS
	RHEUMATOLOGY	4WEEKS
	ICU(+Basic anaesthesiology)	12WEEKS
	RADIOLOGY	12WKS
	PULM. PHYSIOTHERAPY	2WEEKS
	MICROBIOLOGY,	4WEEKS
	CHEMICAL PATHOLOGY	3WEEKS
	HAEMATOLOGY	2WEEKS
	MORBID ANATOMY	3WEEKS
	CARDIOTHORACIC SURGERY	8WEEKS
	ENT	4WEEKS
	2 <sup>ND</sup> CORE PULMONOLOGY + CTS(8 WKS)+ENT(4WKS)	12MONTHS
		36MONTHS

## PROCEDURES

S/N	PROCEDURE	HARMONISED MINIMUM REQUIRED NUMBERS
1	SPIROMETRY	20
2	BRONCHOSCOPY	10(observed) 5(sup. Perf)
3	THORACOSCOPY	5
4	PLEURAL BIOPSY	10
5	CHEST TUBE INSERTION	10
6	ALLERGY TESTING	5
7	SLEEP STUDY (POLYSOMNOGRAPHY)	5
8	CPAP	10
9	CHEST ULTRASOUND	6
10	TUBERCULIN SKIN TEST	10
	CXR INTERPRETATION	20
	CHEST HRCT & MRI	20
	CHEST SCINTIGRAPHY	5
11	GRAM STAIN	5
12	ZN STAIN	5
13	BACTEC STUDY	5
14	ABG ANALYSIS	5
15	EXERCISE TEST	10
	PLAIN ECG	20
	EXERCISE ECG	5
	ECHOCARDIOGRAPHY	10
16	ADVANCED LIFE SUPPORT	EVIDENCE OF TRAINING
	PULMONARY AUTOPSY	10

NB:- NS= stated in the curriculum but number is not specified

Blank spaces = not stated in the curriculum

# RHEUMATOLOGY

**HARMONISED CURRICULUM**  
**RHEUMATOLOGY**

<b>POSTINGS</b>	<b>HARMONISED DURATION</b>
<b>CORE RHEUMATOLOGY</b>	
Primary Rheumatology Posting	18 months
Orthopaedic Surgery	1 month
Immunology/Serology Laboratory	2 weeks
Radiology	2 months
Paediatrics	4 weeks
Physiotherapy/Rehabilitation	1 month
<b>GENERAL INTERNAL MEDICINE</b>	
Dermatology	2 months
Neurology	2 months
Chest medicine	2 months
Nephrology	2 months
Cardiology	6 weeks
Emergence medicine	3 months
*EULAR ONLINE COURSE	43 modules
<ul style="list-style-type: none"> <li>• Adult Rheumatology/ Paediatric Rheumatology</li> </ul>	[2 years]

\* A pass in the online course is a prerequisite for certification

1. Conferences Recommended –

- > European League Against Rheumatism [EULAR] scientific meeting
- > American College of Rheumatology [ACR] scientific meeting
- > African League of Associations of Rheumatology [AFLAR] scientific meeting
- > Nigerian Society of Rheumatology [NSR] meeting

2. CANDIDATES ARE EXPECTED TO WRITE AND SUBMIT 10 CASE REPORTS

3. Recommended Specialty Journals

- a) Annals of the Rheumatic Diseases
- b) Arthritis and Rheumatology

c) African Journal of Rheumatology

d) Nature's Review Rheumatology

**PROCEDURES-**

<b>PROCEDURE</b>	<b>HARMONISED MINIMUM REQUIRED NUMBERS</b>
Arthrocentesis – Knee	50
Arthrocentesis – Shoulder	30
Arthrocentesis – Ankle	10
Arthroscopy	5
Epidural injection	5
EMG	5
Densitometry	5
Nerve Conduction Tests	5
Skin Biopsy	5
Kidney Biopsy	5
Biologics Administration	5